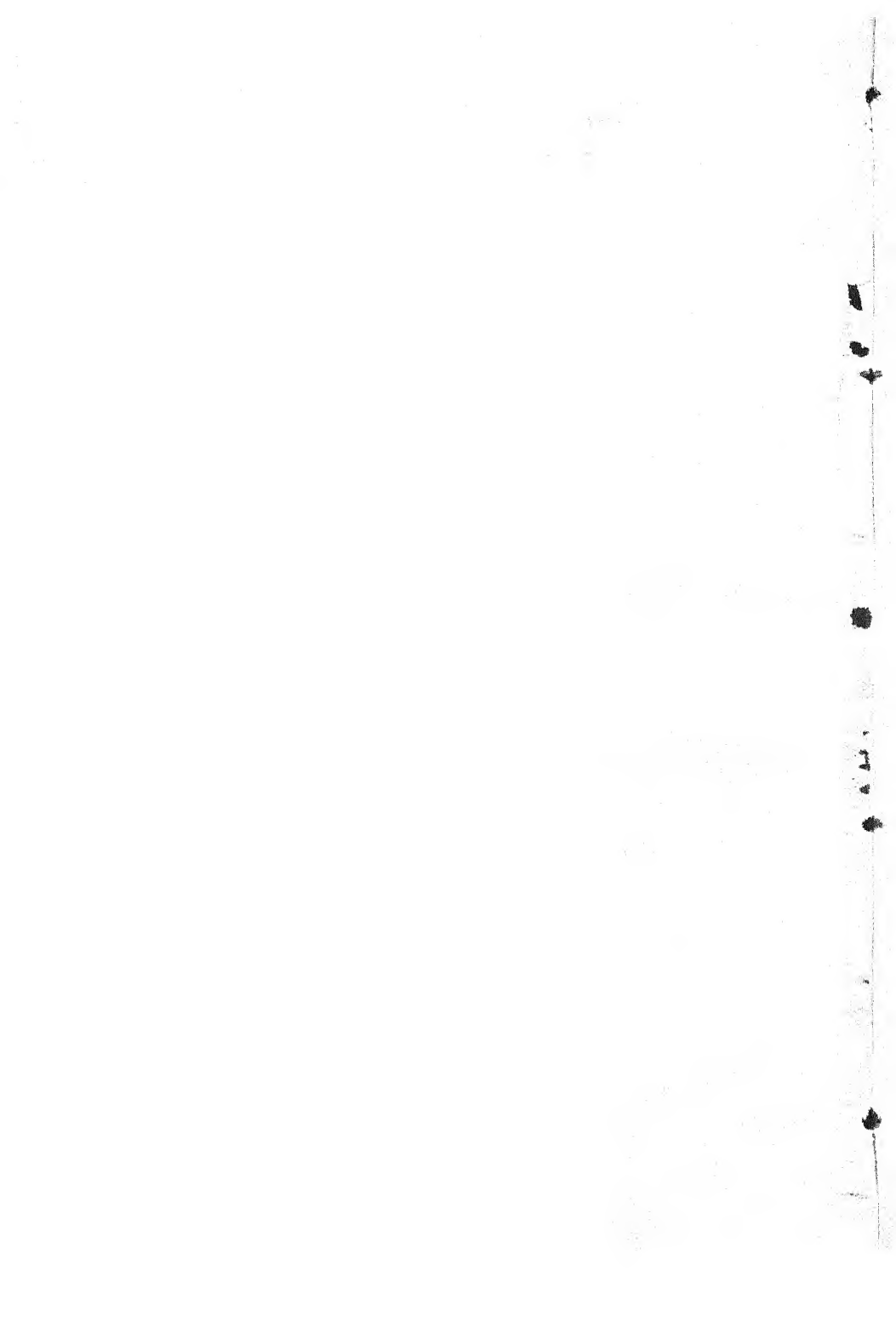


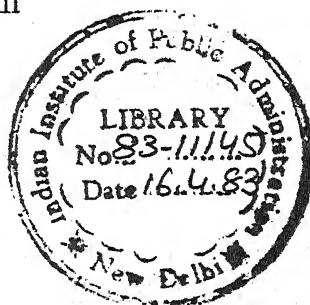
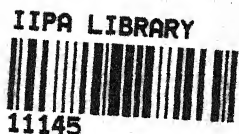
# GRAMMAR OF PLANNING



# GRAMMAR OF PLANNING

CONCEPTS AND APPLICATIONS

P.R. Dubhashi



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*FOR AND ON BEHALF OF*

THE TRAINING DIVISION, DEPARTMENT OF PERSONNEL  
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## FOREWORD

It gives me a great pleasure to know that the Indian Institute of Public Administration has undertaken the important task of bringing out a series of monographs dealing with various aspects of public administration. The beginning has been made with the publication of this book on "Grammar of Planning".

The importance of planning as a means of achieving certain goals of economic development in India was first visualised by our great leader Pt. Jawaharlal Nehru. Since the formulation of the First Five Year Plan in early 50s, the planning process has undergone many changes for the better, both in terms of methodology and in the content. The successive Plans have been formulated with the adoption of refined techniques to ensure mutually consistent output levels for various sectors of economy at the national level. Attempts have been continuously made to decentralise the Plan formulation process with the introduction of district level planning machinery.

It is a great privilege and it gives me much pleasure to be asked to write a foreword for Shri P.R. Dubhashi's book on "Grammar of Planning". The book attempts to bring out the picture clearly about the integrated system of planning process in simple English and it will meet a long-felt need and provides information on various facets of planning process in India. It also brings out the difference between principal types of planning systems followed elsewhere in the world in the totalitarian and democratic plannings. Very detailed account has been given in regard to the Plan formulation at the national as well as the district level, implementation machinery and monitoring and evaluation systems.

Shri Dubhashi has done a commendable job in analysing the various stages of planning process and I have no doubt that this will promote clear understanding of planning process. It will be a valuable edition to the literature on Indian Planning.

I congratulate Shri Dubhashi for working hard to bring out this book. I am confident that it will prove extremely

useful and receive wide acceptance by those who are interested in problems in the Plan formulation and its implementation. I hope that it will have the very considerable intellectual and practical impact that it deserves.

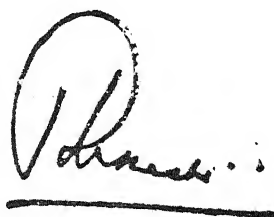
YOJANA BHAVAN,  
NEW DELHI,  
MARCH, 1983

S.B. CHAVAN  
*Minister of Planning*  
*and*  
*Vice Chairman*  
*Planning Commission*

## PREFACE

The publications brought out by the IIPA over years have embodied the results of research studies or proceedings of conferences and seminars on important themes. While these publications constituted an useful contribution to the literature on public administration, it was felt that the IIPA could also bring out a series of monographs giving a clear and concise analysis of the various aspects and sectors of public administration. These monographs would endeavour to bridge the gap between theory and practice by explaining the application of theoretical concepts and principles to practical situations and problems in public administration. The offer of the Department of Personnel and Administrative Reforms, Government of India, to support the preparation and publication of such material has made it possible to bring out the monograph series which begins with this monograph on "Grammar of Planning".

It is hoped that the students and practitioners of public administration would find it useful.

A handwritten signature in dark ink, appearing to read 'P.R. Dubhashi', is written above a horizontal line.

IIPA,  
NEW DELHI,  
MARCH, 1983

(P.R. DUBHASHI)  
*Director*



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## *Concept and Rationale of Planning*

It was Sir Harcourt Butler who said at the beginning of the century that "we are all socialists now". With much greater justification can it be said, in the last quarter of the century, that "we are all planners now". While there may still be many people who would not call themselves socialists, they may not hesitate to call themselves planners.

This is because planning has now become synonymous with the method of the modern scientific age. When the word planning is used in this sense, it simply has its universal connotation, namely, planning is "an orderly arrangement of the future". Instead of leaving the future to be decided by the vicissitudes of circumstances, the method of planning is used as a deliberate attempt to understand the forces that shape the future and to mould them in such a manner as to facilitate emergence of the arrangements for the future which would be more consistent with our own goals and desires. Planning stands for the exercise of will as against helpless surrender to our own environment. In this sense, planning stands for the triumph of reason over superstition, of understanding over ignorance, of organised initiative over fatalistic helplessness.<sup>1</sup>

With modern technology and organisation, man's ability to understand the circumstances which influence his life and to shape them has enormously increased; that is why, planning has become the handmaid of technology and organisation.

<sup>1</sup>The whole of our economic life is dominated today by increasing *rationalisation* which Malthus foresaw would develop when men began to look backward and forward. Planning denotes the transition—made necessary by technological advances and by changes in behaviour from Darwin's age when progress depended on survival resulting from natural selection to a Lamarckian age of survival by calculated inventiveness.

It is thus rightly expected of every modern man or an institution or organisation to plan for the future. It is in this sense that the planning has become a distinctive characteristic of modern society and economy. To the extent to which planning has become a part and parcel of organised social action, the society could be described as modern and progressive.<sup>2</sup>

John Kenneth Galbraith in his *The New Industrial State* has drawn attention to the significance of planning in the new industrial society. Modern technology requires a massive and inflexible commitment of resources to the introduction of innovation in the process of production of goods and services and it is impossible to make such commitments without meticulous and detailed research and planning not only regarding the production of particular goods or services but also the marketing of those goods and services. In the words of Bauchet : "Long before new requirements arise, means of satisfying them must be considered and a research programme initiated, the results of which may take as long as five years to mature. All western countries draw out their forecasts and programmes in the sphere of energy for about twenty years. The supply of energy at normal prices depends on investments made more than fifteen years ago. This applies equally to iron and steel industry, the chemical industry and all other rapidly expanding branches with a growing volume of investment. All these industries require investment of larger and larger sums further and further in advance of the anticipated date of production." Planning has become a passport to success of an enterprise. It has become the first and most important technique of modern management. Absence of planning is absence of preparation and therefore the path of failure. Because of the

<sup>2</sup> "People have become more willing to organise their lives.... People of today have begun to recognise that collective organisations are indispensable if the future is to bring that progress to which everyone aspires...." They have realised that future is collective not individual. Technical innovations are compelling manufacturers to make forecasts. These two changes are reflected in economic life. Pierre Bauchet, *Economic Planning—The French Experience*, London, Heinmann, 1964.

interdependence in growth, forecasts cannot be confined to single firms or sectors of the economy but are undertaken on national and international scale as well.

This is, however, not the sense in which economists use the word planning. Planning in the universal sense of the orderly arrangement of the future need involve no controversies. Planning, on the other hand, has been a subject of fierce controversy in the past and continues to be so even today because of the special meaning of planning as understood by the economists, social thinkers and policy makers. In that special sense, planning stands for replacement or supersession of planning by individuals or private institutions by planning by the state.<sup>3</sup> Planning thus stands for an economic system which is an alternative to free economy and *laissez-faire* policy. The objective of the planning by the state is to influence, alter or re-direct decisions by individuals or private institutions, by consumers, producers and workers so that they can conform to the pre-determined preferences or goals set by the planners. It is planning in this specific sense that constitutes the Pandora's box of controversies between economists, social thinkers and parties belonging to various schools of thought, various *isms* and various political, economic and social systems.

Moreover, though adherents of different schools of thought, or *isms*, or economic philosophies repose their trust in planning, they do not mean the same thing when they talk of planning. Indeed there appear to be as many concepts of planning as the various schools of thought which talk about planning.

Thus one school of thought would look upon planning as a method of overcoming the shortcomings of capitalism or the market economy. They would like to keep the basic mechanism of the market economy in tact. But they would use planning not to end but to mend the market economy, to set right its defects or aberrations. They would like to

<sup>3</sup>It is in this sense that planning is defined by Barbara Wooten as "conscious and deliberate choice of economic priorities by some public authority". *Freedom and Planning*, London, [George Allen and Unwin, 1946, p. 12.

combine planning with the market mechanism or a free economy.

On the other hand, the socialists would like to end the market mechanism and the private ownership of means of production. The latter would be socially owned and planning becomes a method of management of the socially owned means of production.

Finally, for the developing countries of the world, planning stands for a method of breaking the vicious circle of poverty and bringing about economic development and social change as speedily as possible.

Thus, the concept and rationale of planning would depend on which school of thought is talking about planning. All that is common to these different concepts of planning is what has been mentioned above as the universal idea of planning, namely, orderly arrangement of the future.<sup>4</sup>

While a wide variety of people believe in planning, though in different senses, there is still a group of thinkers who do not believe in planning at all, who consider that management of economy through planning is an impossibility, is not practicable and is destined to fail. Among these are Ludwig Von Mises and F.A. Von Hayek.

<sup>4</sup>Bauchet agrees with this point of view : "In spite of differences, all plans are the same in essence. Every true plan is the expression of collective determination to steer the economic system in the direction of what is seen as progress. As distinct from the plans of individual firms, a national plan constitutes the action of the community which subordinates the decisions of the natural persons and corporations to the achievement of coordinated aims within a fixed period." Bauchet, *op. cit.*

Alvin Toffler, the author on social futurism, in his celebrated book, *The Future Shock*, has the following to say on the universality of planning in the modern age : "By technocratic planning I do not only mean the centralised national planning that has until recently [characterised USSR but also less formal dispersed attempts at systematic change management that occur in all high technology nations regardless of their political persuasion.... In France, the Plan has become a regular feature of national life. In Sweden, Italy, Germany and Japan, governments actively intervene in the economic sector to protect certain industries to capitalise others, and to accelerate growth. In USA and Britain, even local governments are equipped with what are at least called planning departments". (Bantam Book, Paper Back edition), p. 448.

## II

Every economic system has to provide answers to the fundamental economic questions. These are, what to produce, how much to produce, for whom to produce, how to produce, when to produce, where to produce and why to produce. The last perhaps is the most important of all the questions because it deals with the fundamental problem of economic motivation.

The whole of economics, as it has evolved from the days of Adam Smith, the author of *Wealth of Nations*, stipulates that man is an economic animal and is governed in his economic decisions, whether as consumer, producer or worker, by the fundamental motivation of economic self-interest. Each as an independent economic agent, tries to get maximum satisfaction at the minimum sacrifice of economic interest. This maximisation process involves marginal adjustments. The consumer tries to maximise his satisfaction by ensuring that the marginal satisfaction of spending the last unit of money on various commodities is the same. The worker tries to maximise his satisfaction by equating the marginal dissatisfaction of additional hour of work with the satisfaction from goods and services derived from the additional wage earned. Finally, the entrepreneur or the producer tries to equate the marginal cost with marginal profit in trying to optimise his production. These decisions of every individual governed by economic motivation provide answers to the basic economic questions as though they were mere by-products. Thus the answer as what to produce is governed by the demand of consumers which in turn depends on their income, the scale of preference and the relationship between price and demand known as elasticity of demand. The answer to the question how much to produce and for whom to produce is also governed by the same conditions affecting the level of demand. The market economy is supposed to be ruled by the sovereignty of the consumer. It is the pattern of consumption that governs the pattern of production and provides answers to the question what, how much and for whom to produce. The market mechanism or the price mechanism simultaneously decides the allocation of

resources in the processes of production in such a manner that the pattern of production conforms to the pattern of consumer demand. Indeed, the distribution of income, the pricing of products and of all factors of production is simultaneously determined by the same mechanism. There is a continuous tendency towards equilibrium which ensures parity between costs and prices, productive contribution of the factors of production and compensation to them, demand and supply for goods and services and demand and supply for factors of production. Any imbalance between costs and prices and demand and supply of goods and factors of production is corrected by the equilibrating tendencies of the market which were described as the 'invisible hand' by Adam Smith, the founder of economic science. In such a free, perfectly competitive system of market, there could be no undue profits, no exploitation of consumer, the worker or the producer, no permanent surplus or deficit commodities and no persisting unemployment because each of these imbalances would set in the correcting forces into motion. Thus, the market mechanism would ensure an optimum utilisation of the resources of the economy and an optimum scale of production.

The questions where to produce, how to produce and when to produce are also settled in a similar fashion. The question as to where to produce is the subject matter of the economic theory of location, developed first by Alfred Weber and subsequently by other economists. Industries or enterprises will be pulled, on one side, by proximity to raw materials and, on the other, by the proximity to the market for the finished products. The balance of both these factors would be decided by comparing the marginal cost of transporting raw material with the marginal cost of transporting the finished products. If transporting the raw material like sugarcane is more costly, then the factory will be located near the source of supply of raw materials. On the other hand, if the raw material is economically transportable, proximity to the market for finished product will tend to decide the location near big consumer centres, *i.e.*, cities. The same considerations of balancing the comparative cost will govern whether the goods will be produced within the country or imported. The law of comparative cost

is an international extension of the law of the market economy.

The questions as to how to produce and when to produce are decided by balancing the marginal sacrifice of savings with the marginal product of investment. The marginal sacrifice of savings is measured by the loss of satisfaction caused by the postponement of consumption, while the marginal productivity of investment decides the returns that follow the postponement of present consumption for increasing the future flow of goods and services. If the marginal sacrifice of savings is greater than the marginal product of investment, then the decision would be in favour of a process of production which will deliver the goods here and now. In other words, the production process will be less capital intensive. On the other hand, higher productivity of investment would lead to the choice in favour of a more elongated process of production requiring investment of resources in capital goods or long gestation production process.

Thus, the market mechanism ensures maximum satisfaction to the consumers, maximisation of profit to the producers, optimum allocation of resources as also full employment of resources. This is not in consequence of any central direction of the economy but a by-product of the maximisation process in which individual consumers, workers or producers participate, each deciding by himself and none able to influence the economy as a whole.

If the market economy is such a paragon of perfection, then what is the need for planning the economic affairs rather than leaving them to the market forces? The answer is that market mechanism can deliver the goods only if certain assumptions are fulfilled.

### III

The market economy never functioned in a perfect manner as envisaged in the theoretical model. In practice, economic aberrations developed not in a marginal or in transient manner but in a structural, chronic and persistent manner which led major economists and social thinkers to question the fundamental assumptions regarding the working of the market

economy and the adequacy of the capitalistic economic system to deliver the goods. Already Karl Marx had predicted that the capitalistic market economy would collapse under its own weight due to internal contradictions. But Marx was looked upon by the orthodox economists as a heretic who did not belong to the regular line of economists, whose teachings did not form part of the economic text books and who found a place only in the text books on the history of economic thought.

But, economic, realities cannot be wished away by constructing elegant economic models ! Economists were forced to consider the major evils of the capitalistic market economy namely, monopoly, inequality, unemployment and neglect of productive and social considerations.

The entire rationality of the market mechanism rested on the assumption of a free competition between the innumerable producers and innumerable consumers.

But, in practice, this assumption goes by the board mainly because of the operation of the law of increasing returns to scale and indivisibility of investment, plant and machinery in many sectors of the working of the modern economy. Such were the advantages of large scale production and organisation, that it was found in the evolution of the capitalistic economy, that in areas as diverse as steel, motor-cars, food products, fertilisers, etc. small units could not survive inevitably leading to the emergence of few giant enterprises dominating the entire production if not a single firm monopolising it. Prof. Galbraith has vividly described in his *New Industrial State* how some 500 monopolistic enterprises in America virtually control the entire economy. In public utility enterprises, like railway and electricity, monopolies were found to be inevitable. Thus monopoly, oligopoly and monopolistic competition happened to be the rule rather than the exception. But the emergence of monopoly can hardly be an unmixed blessing because while it gives the advantages of large scale operation at the same time it enables the monopolists to hold the consumer and the community to ransom. Indeed the monopolist dethrones the consumer and usurps his place as the sovereign of the economy. The consumer is at the sweet

will and mercy of the monopolist. Once the monopoly emerges, many other evils may follow. The monopolist could create artificial scarcity and boost prices. He may spend excessive amount on advertisement to bamboozle consumer and force him to fall in line with what the monopolist wishes. He may indulge in product differentiation without any real substance. He could limit production and boost prices and profits. He could indiscriminately exploit the natural resources.

Monopoly leads also to the concentration of all means of production and fruits of production in few hands. In other words, monopoly is the biggest source of inequality. Of the many undesirable consequences of inequality is the distortion of production and channelisation of resources in directions which could be considered as of low social priority. Thus, since the purchasing power is concentrated in few hands, the luxuries of the few exert greater pull on the production system than the dire necessities of many. One of the advantages claimed by the market economy is that it adjusts the production prices to the pattern of consumer demand. But this so called advantage of the market economy becomes a major evil, if the consumer demand itself reflects economic inequalities where food for the pet dog of the rich receives higher priority than the food, shelter and clothing for the poor.

These two evils of monopoly and inequality in fact lie at the root of the evil of unemployment. The capitalistic economy traditionally suffered from the occurrence of business cycles. The economy moved in the cycle of prosperity and depression. During the period of depression a large number of people were thrown out of employment. The worst shock to the economy came with the great depression of 1929 which shook capitalism to its foundations and called for an agonising re-appraisal of the conventional economic analysis. The latter would have us believe that the depression in the economy was caused by the fall in profit of business which in turn was caused by rise in costs. The remedy was, therefore, to cut down the costs, *i.e.*, cut down wages and reduce interest rates. The policy of cutting down wages however served to deepen depression and it required

the genius of John Maynard Keynes to evolve new economics which taught that the depression was caused by fall in effective demand which in turn was caused by the collapse of purchasing power.

The remedy would lie in supporting the effective demand through a programme of public investment and a comprehensive programme of social security. The funds for such an investment programme would be found by transfer of funds from the affluent to the indigent which would also serve to increase the propensity to consume and boost up effective demand.

The apologists of the market economy some time tend to confuse productivity with profitability. Monopoly, scarcity, and immobility may encourage business activities which are profitable, but they would not be necessarily productive and socially desirable. Moreover, the profitability criteria take into account private costs and benefits and not social losses and gains. It was Pigou who introduced the new concepts of welfare economics based on an accounting of social benefits and costs. Housing and transport congestion, excessive pressures on public services, like water and sanitation, environmental pollution through generation of smoke and industrial waste and effluents, are social costs which the market economy fails to take note of.

Thus planning came to the fore-front in western economies to mend the evils of capitalism if not to end the system itself—the evils of monopoly, unemployment, inequality and social costs. In the words of Barbara Wootton, "By its very nature, the market is incapable of registering preferences which cannot be reflected in the consumer demand for particular articles, *e.g.*, preference for full employment, social values, etc. These can only be promoted by deliberate planning and not by any commercial market." The agenda of such planning needed a public investment programme and a series of physical and monetary measures, a set of subsidies coupled with progressive taxation, public consumption programme, and social insurance. Though the details may vary, these have become the essential ingredients of planning in the western economies.

After World War II, planning assumed new significance

in the western countries. It became "a sign of the 'wind of change' blowing through the traditional capitalistic structure".<sup>5</sup> Of all the western European countries making use of planning, France emerged as the most outstanding. Their system of "indicative planning" tried to reconcile planning with market economy, freedom of choice for the consumer and businessmen with centralised direction, and consultation with capital and labour with parliamentary democracy. Planning not only became increasingly important for achieving significant growth rate but also proved to be "indispensable for the establishment of price, production and manpower policies for public and private enterprise". Thanks to the increasingly precise methods of econometric analysis and investigation, planning in western countries has become more and more a sophisticated exercise.<sup>6</sup>

Planning thus brought about a significant qualitative transformation in the capitalistic economic system without destroying it. It changed the market economy from a mechanism working blindly under the forces of demand and supply into a purposeful forward-looking organisation. It has provided a common framework of operation for different partners in the economic system. The entrepreneurs refer to the plan when reaching their decisions. Plan provides them with a long term perspective and once they are less exposed to sudden temporary disruptions or violent periodical crises. Planning has become a steadying factor in the working of the market economy. Similarly, while the struggle of different economic groups to get a larger share in the economic cake,

<sup>5</sup>Bauchet, *op. cit.*

<sup>6</sup>All this is a far cry from the earlier reservations about the compatibility of planning with market economy expressed by earlier authors on planning like Barbara Wootten: "The socialist will write off the possibilities of public planning without public production in peace time. Government plans not executed will either flounder on the rock of vested interest or wrecked by exploitation. The apparatus of control like price regulation, profit limitation, quotas, etc., will prove so formidable that in the end it would be more sensible to do the job yourself. The amount of effort needed to circumventing government regulation is considerable. The effort involved in circumventing such efforts to circumvent law is even greater."

*i.e.*, the class struggle, itself is not eliminated, planning has guided it in the direction of collective progress. Plan has imposed at least a small degree of collective discipline. Planning has become a symbol of "tendency of different groups to strive for future prosperity through united action in the present". Indeed planning is a sure sign that capitalism is changing.

Following the French experiment, the *British* Government also set up Neddly (National Economic Development Council) in July 1961. In 1959, the *Belgian* Government established a Bureau de Programmation to draft economic plans for 1965. *Netherlands* took to planning even earlier. As long ago as 1945, it set up the Central Planning Bureau, a research and planning centre, which makes forecasts and recommendations to government to ensure balanced economic developments for the country in the form of annual plans into which its long term projects are incorporated. *Italy* prepared a plan based on economic studies for the development of employment and income for the ten-year period 1955-64. In August 1962, the government appointed a National Commission to draw up economic development programme. *Japan*, though an Asian country, must be grouped with these western economies in terms of levels of economic development. It set up Economic Planning Agency and Council whose reports describing conditions required for the fulfilment of desired economic goals, become plans when approved by government. The agency produced several plans. Its 1961-70 plan called for national income to be doubled over the period at the rate of 6.5 per cent per annum.

#### IV

If planning is the instrument of correcting or counter-vailing the aberrations, imbalances and mal-functioning of the capitalistic economy, it is the method of management of a socialist economy. With the socialisation of the means of production, the private entrepreneurs or directors of the firms are replaced by state appointed managers. The latter, whether of farms or firms, are not free decision-makers but function as agents of the state. They are governed by

the directions of the state authority. The central [authorities of the state could either issue detailed instructions regarding the management of individual units in the economy or provide general guidelines in the light of which the individual managers could take decisions pertaining to their own units. These instructions or guidelines constitute the plan in a socialist economy. Stalin was, therefore, right when he said that "our plans are instructions".

It was the contention of Mises and Hayek that socialism was impracticable and unworkable because no central authority could ever provide instructions and decisions to innumerable units producing innumerable types of goods and services, requiring innumerable decisions involved in the production process. The central authority will never possess the necessary information needed for solving simultaneously the equations regarding inputs of factors of production and output of goods and services. Mises and Hayek were writing before the advent of the computer age. But even with the help of the computer, one is not certain whether the Central Planning Authority could keep on solving these equations and communicating the decisions to innumerable producers, consumers, and workers.

Planning in a socialist economy may not, however, necessarily entail that all decisions need to be centralised and communicated by the central authority. Oskar Lange, in his book *Economic Theory of Socialism*, pointed out how socialistic planning is possible on a decentralised basis. The Central Planning Authority would provide the guideline to the entrepreneur of individual units to equate marginal cost with marginal return. This will ensure optimum production decision by individual managements. The market economy would thus be retained. This would not be inconsistent with the existence of the socialistic economy because means of production would be socially owned and surplus would not constitute profits of the capitalist entrepreneur but the income of the state or the socialist economy.

Planning may be centralised or decentralised; it nevertheless is an inevitable instrument of management of the socialist economy.

## V

After the end of World War II, many countries of Asia and Africa, hitherto colonies of the western imperial countries, became independent nations. All these countries looked upon political freedom as an instrument of economic development. As a result of the western domination over Asian countries, many of them though nominally independent, were incapable of pursuing any independent economic policy. They were not masters of their own destiny. Some of these countries, however, were able to free themselves of western domination and launch upon their own independent path of economic development.

In chalking out the path of economic development, they were convinced that they could not leave their economic progress to the vicissitudes of the market economy but would have to launch upon a deliberate plan of economic development. For the underdeveloped countries, planning thus became an instrument of rapid economic development.<sup>7</sup>

Many of them were unwilling to blindly adopt or adapt *in toto* the extant patterns of planning. They did not want either the centralised planning of the communist countries nor the partial or peripheral planning of the western countries. What they wanted was the third path in a pragmatic blend of socialism and capitalism, a mixed economy consisting of public, cooperative and private sectors functioning within the framework of planning.

Whatever be the pattern of the economy, what the newly emerging countries desired over everything else was rapid economic development. Having missed the opportunity to be present at the banquet of industrial development whose fruits were enjoyed only by the western countries, they wanted to telescope centuries of economic development into only a few decades. Rostow, in his analysis of the historical process

<sup>7</sup>This is how Barbara Ward explains the relevance of planning in India in her book, *The Plan Under Pressure—Council for Economic Education*, Bombay, Asia, 1963. "Before the advent of Plan, India's economy was either stationary or regressive for 20-30 years. Given this background, it was a herculean task to swing the vast system out of its stationary mould and into the ways of growth—in every sector, ahead of population which can lead to self-sustained growth."

of economic change, identified five distinct stages of economic development, *viz.*, traditional economy, transitional economy, take-off stage, self-sustained growth, and, high mass consumption economy. Most of the emerging countries in Asia, specially India, found themselves in the traditional stage and looked upon planning as a method of hastening the take-off stage and moving towards self-sustained growth.

There are many ways in which the rationale of planning in an underdeveloped economy could be explained. Thus, it was pointed out by the U.N. Commission appointed for recommending "measures for full employment in underdeveloped economies" that the market economy could bring about only marginal changes. What an underdeveloped country requires for full employment are structural changes and planning alone can bring about such structural changes.

A distinction is made in this context between growth and development. Growth merely implies expansion in the gross national product. It is only a quantitative concept. Development, on the other hand, is a qualitative as well as the quantitative concept. It involves changes in attitudes, institutions, organisations and manpower which are required for the mobilisation of the potential resources of an economy which could never be developed through the normal market mechanism. Old taboos and superstitions have to go. Institutions like caste, religion and joint family which constrain productive factors may have to be altered. Financial institutions and institutions for the promotion of industry and agriculture have to be built up. Agricultural Extension Services and cooperative and community development movements have to be started. Necessary training, education and research facilities have to be provided. Infrastructure has to be created in the form of roads, water supply, power, hospitals, schools, housing, etc. Basic industries, like steel, coal and power will have necessarily to be initiated by the state or else they would never come up.

Another compelling reason for adoption of planning by the underdeveloped countries is their desire to see that development takes place along with reduction of inequalities. Such is "the revolution of rising expectations" in these countries that the typical process of development of the free

economy, where market incentives provide the fuel for development but accentuate inequalities, is found unacceptable. Planning is necessary to resolve the conflict between maximisation of rate of growth and minimisation of inequalities.

Another way of showing the relevance of planning in an underdeveloped country is to point out the reasons why the market mechanism cannot function in a normal manner in an underdeveloped country. The prices in the market economy do not adequately reflect the scarcities and proportions of the various factors of production. The prices of factors of production, which reflect the availabilities of various factors, are called the 'shadow prices', which are different from the prices prevailing in the market. The planning authority, therefore, has to attempt allocation of resources taking into account the shadow prices.

Nor does the market economy provide for the complementations and external economies to which attention was drawn by Rosenstein Rodan. In such a situation, success depends on simultaneous planning of complex interlocking projects.<sup>8</sup> It is only the state or the planning authority that can provide investment needed for the complementarities which taken together make investment economic which would otherwise be an un-economic proposition.

Capital formation has been considered to be the keynote to the economic development and capital formation requires savings. W. Arthur Lewis has stated that the progress from an underdeveloped to a developed economy requires that the rate of savings should be pushed up from 5 to 12.5 per cent. For pushing up the rate of savings and mobilisation of resources, it becomes necessary for the state to participate in a big way in the entire economic system, to socialise banking and insurance, to set up financial institutions and take hold of the commanding height of the economy. This, therefore, forms yet another justification for state participation in economic system and State sponsored planning.

Ragner Nurske showed how idle manpower resources can be used for capital formation in an underdeveloped

<sup>8</sup>W. Arthur Lewis, *Development Planning—The Essentials of Economic Policy*, London, George Allen & Unwin, 1960.

country. The works programme needed for such an effort can only be taken through a planned programme of economic development.

Thus, planning in an underdeveloped country is neither an instrument for mending capitalism or ending capitalism nor ushering in socialism. It is rather an instrument for the mobilisation of all national resources, whether in the public or the private sector, for the tasks of economic development and social change. While planning is ostensibly for economic development, experience has shown that the rate of economic development does not necessarily correspond with the degree of intensivity or comprehensiveness of economic planning. Thus, India has resorted to comprehensive planning continuously since 1952 but its economic performance has not been particularly impressive—above 3 per cent increase in GNP. On the other hand, Japan and South Korea, with less comprehensive planning, have shown a much faster growth rate.

## VI

Thus, there are three different concepts of planning in relation to three different economic systems. In the erstwhile western capitalistic economic systems, planning is a means of correcting some of the shortcomings of the marketing economy, like unemployment, monopoly, inequality or social costs of private enterprise. In a socialist economy, planning stands for management of socially owned means of production. Finally, in the developing countries, planning is an instrument of accelerating the pace of economic development.

Is there anything common between these three distinct concepts of planning as have been set out above?<sup>9</sup> In respect

<sup>9</sup>Some authors would like to confine planning only to socialist or non-capitalistic countries. Thus Barbara Wootten observes : "Planning is a matter of degree. It is nowhere completely absent nor does it cover anywhere 100 per cent of economic activity." However, she considers that the span that divides the Soviet from New Deal America may be wide enough to justify the use as a convenient shorthand of the respective labels—planned and an unplanned system. For practical purposes, economic planning means state economic planning and planned

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of methodology, organisation, machinery, procedure and mobilisation of resources, etc., is there anything common? Are the techniques equally relevant to the various concepts of planning so that different countries can draw on the lessons of each other? Is there anything like an optimum system of planning irrespective of differences in the economic systems? The answers to these questions would be apparent in the succeeding chapters. □

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economy means economy predominantly planned by government of one state for the people of the state. Such a view has, however, become more and more untenable for two reasons. First, with the progressive enlargement of planning in the traditionally market economies on one hand, and the use of the market mechanism in the socialist economy on the other, there has come about what may be called a progressive convergence between the two economic systems. Thus, even the highly planned Russian economy carries its fringe of private enterprise and Americans have their own public utilities. Every economy in the world is a mixture of plan or non-plan, of private enterprise, state and municipal enterprise semi-public corporations, producers' and consumers' cooperatives compounded in various proportions. Secondly, the approach to planning is becoming more and more pragmatic rather than idealistic or dogmatic. It is more and more appreciated that systems are means not ends. Comprehensive programme of socialisation for its own sake is no longer considered valid. On the other hand, if economic planning fails because of the uncooperative attitude of business, the case for public ownership is strengthened. It is this pragmatic approach to planning that makes sharing of experiences of planning in diverse systems and situations an ever increasing possibility.

# *Planning Typology*

While analysing the concept of planning, we have already identified three principal types of planning, namely, planning in a market economy as in the western countries, planning for the socialistic economy as in Soviet Russia and other eastern European countries, and planning in mixed economies such as do exist in a number of developing countries like India.

But the planning systems have been distinguished in many other ways as well. Thus, there could be comprehensive planning or partial planning; indicative planning or imperative planning; planning by compulsion or planning by inducement; totalitarian planning or democratic planning; sectoral planning and spatial planning; physical planning or financial planning; perspective planning or long range planning, short range planning or annual planning.

Comprehensive planning connotes planning for the totality of the economy. It takes into account the aggregate resources available within the economy and aggregate targets to be reached by the economy as a whole. In Socialistic economies where all except the most minor means of production are socially owned, planning of necessity has to be comprehensive. On the other hand, where, as in the western economies, planning is used as a countervailing instrument or an instrument for correcting deficiencies in economic system, planning tends to be confined only to the planning of public investments, *i.e.*, programme financed out of the budgeted resources or resource available with the public institutions. Admittedly, public investments are intended to influence the entire economy in a direct or indirect manner. However, planning as such is confined only to public investment while its consequences on the economy as a whole are a matter to be taken note of in national income accounting and statistical analysis. In any case, as a result of the influence of Keynesian analysis, the economic data in most of the advanced countries are being exhibited

in aggregate terms of income, output and employment.

In many underdeveloped countries, the economy is now conceptually divided between the public sector and the private sector. In the context of such a distinction, partial planning could be identified as the planning of the public sector. What constitutes the public sector would, of course, depend on the economic policy of the country regarding the participation of the state in the economic activity. In most countries, it would now include infrastructure activities like transport, communication, electrification, irrigation, education, health, and some amount of social welfare. Depending on the policies, regarding nationalisation, it could also include banking, insurance, public utilities, steam, coal, and other basic industries.

While distinction between comprehensive planning and partial planning is made from the point of view of the scope and substance of planning, distinction between imperative planning and indicative planning, planning by compulsion or planning by inducement, is related to the methodology of planning. Indicative planning is a system in which the plan lays down the general framework of goals and targets whose fulfilment is left to the various participating economic institutions. Imperative planning, on the other hand, is a system in which the fulfilment of plans is not left to the spontaneous efforts of the participating economic agencies and institutions, but is brought about through various instruments of control and devices of regulation imposed by the state. The distinction is explained by W. Arthur Lewis<sup>1</sup> as follows :

The distinction between an 'indicative' and 'controlling' plan is important. The (imperative) plans made by Communist countries are documents of authorization; they tell each industrial unit what it must produce and how much it may invest. A Development Plan (of an indicative type), on the other hand, authorises nothing. Even public expenditure is authorized not by the plan but only by the Annual Budget passed by Parliament.

Bauchet seems to identify imperative planning with comprehensive planning.

<sup>1</sup>W. Arthur Lewis, *op. cit.*

An imperative plan not only covers every branch of activity but embraces many aspects of economic life including volume of output, prices, localisation of industries and employment. In extreme cases, a nation may be said to behave like a single firm with a number of factories to manage. It tends to determine final demand, consumption and investment in the light of production targets arranged in order of priority rather than take into account the spontaneous behaviour of agents. It relies for its implementation on orders. It is controlled by the Central Planning Bureau, the financial organisations and above all by the political authority.

France is often mentioned as a country with a system of indicative planning. It is true that the French system seems to build the conformity of the various economic institutions to the fulfilment of planned targets by inviting their participation in the process of plan formulations. But it would be wrong to imagine that France abjures resort to regulatory devices altogether. Physical controls or fiscal regulations certainly do form part of the machinery of planning even in France. There could be no planning in a completely indicative sense, *i.e.*, in the sense that goals and programmes are simply indicated without any idea of fulfilling them. That would be the very definition of *laissez faire*.<sup>2</sup> However, there is no doubt that indicative planning gives far greater scope to the freedom of action in the economic system as compared with imperative

<sup>2</sup>As Bauchet, a leading author on French planning, points out: "The merely indicative plan, by which a state attempts only to look into the future without trying to change it, is not worthy of the name."

He would prefer the term 'flexible planning' to 'indicative planning'. To quote him: "Flexible planning is exemplified by the French System. In an imperative plan, the future is rigorously predetermined; in a flexible plan it is merely indicated in broad outlines; the necessary adjustment to unforeseen developments being regarded as a matter for day to day action and the operation of automatic mechanisms. These true plans, however, for their aims are coordinated, they have a time limit and they employ means of compulsion ... Such plans operating within wider limits of the growth, forecast for the *whole* economic system, deal with restricted number of targets, usually established per branch rather than per firm and allowing considerable *freedom of action* to entrepreneurs".

planning which is often associated with planning in the socialist or totalitarian countries. Stalin said : "Our plans are instructions"; in other words goals and targets of planning are commands which have to be obeyed and carried out by managers in charge of various units in the economic system. Sanctions and incentives are provided in order to ensure that the targets of planning are fulfilled. However, even in USSR there is nowadays an increasing recourse to market mechanism and financial incentives; competition is introduced and profit making capability invoked. As compared with comprehensive and imperative planning, partial and indicative planning has the advantage of being selectively concentrated on the essentials of economic life.

The distinction between planning by compulsion and planning by inducement turns on the various techniques used to ensure fulfilment of plan targets. Thus, planning by compulsion would include a whole battery of physical controls like allocation of raw materials and intermediate products to various production units in industry and agriculture, rationing of consumer goods, quotas of foreign exchange, permits and licences for setting up industries, etc. Planning, by inducement, on the other hand, is a system in which there is a resort to various fiscal and monetary devices by the planning or central governmental authorities—devices like taxations and subsidies, manipulation of prices and tariffs, rates of interests including the bank rate, open market operations, floatation of loans and debentures, etc. An economist has described planning by compulsion as planning by biting and planning by inducement as planning by barking.

A distinction has also sometimes been made between totalitarian planning and democratic planning. Totalitarian planning is described as one where the almighty state or the planning authority imposes a pervading discipline of planning. Workers, managers, consumers, farmers, indeed people at large have little or no choice, no freedom in deviating in any manner from the prescribed plan. On the other hand, democratic planning is described as a planning process in which people participate in both formulation and implementation of plans. It is sometimes pointed out that planning by definition requires replacement of people's choice by the

planners' choice. In other words, planning and democracy are inherently incompatible with each other.<sup>3</sup> In fact,

<sup>3</sup>This is also the view held by Baughet : "We have to admit that the problem of Planning *versus* Democracy has not yet been solved. No way has yet been found of reconciling the *coordination* of decisions regarding prices, production and income with some measure of *decentralisation*, of imposing necessary degree of *constraint* while respecting freedom of firms and individuals. The technocrats may slowly wrest the economic control of the state out of the hands of political authority and away from other groups in the community." Again, "Planning requires an enormous, all powerful central administration dominating every sphere of economic life. The very option of a Plan is inconsistent with the activity of a democratically elected Parliament which confines itself to giving *carte blanche* to the executive at stated intervals." Barbara Wootten has also expressed similar fears: "Planning is not possible without power and power, whether in the hands of Prime Minister or railway guard, is potential tyranny. A wise choice of planners and watchful eye on plans may well be the price of freedom" or again "Freedom demands assurance that it is for the common needs of the community and for no other that the planners shall in fact plan."

"Any government with absolute power to plan the use of community's resources down to the last detail can make effective freedom of speech or worship impossible for any body, person or society of whom it disapproves merely by withholding such materials." She however, asserts: "It is nonsense to assert that comprehensive economic planning cannot stop short of the point at which it destroys all cultural freedom.... British wartime experience has shown that even under the stress of war, comprehensive economic planning is possible without recourse to totalitarianism. All offences against law are dealt with through ordinary courts". Of course, the experience of USSR, the first example of really comprehensive economic planning in times of peace has been different since "there have been plenty of opinions which no Soviet citizen could safely express". But for this she holds the Russian background of civil liberties responsible. She positively asserts : "We cannot conclude in the light of their experience that attempt to combine civic liberty and economic planning has been tried and failed." On the other hand, she hopefully concludes : "There is nothing in the conscious planning of economy priorities which is inherently incompatible with the freedoms which mean most civil liberties are unaffected. Fullest possible scope can be given to individual and social groups in their pursuit of cultural ends. The consumer has the freedom to compare prices and qualities and spend his income. Industrial direction and conscription are unnecessary. Planning need not be the death warrant of private enterprise. It is

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Prof. Hayek has described planning as a road to serfdom, Prof. Schumpeter has also pointed out this as a major danger in socialism. All powers of economic decision-making would be concentrated in the hands of planners; gradually but inevitably this would mean that all important decisions not only in economic but in other fields would tend to be concentrated in the hands of the ruling authorities. Planning would thus inevitably degenerate into bureaucratic tyranny.<sup>4</sup> Indeed, democracy as a political system cannot survive too long in an economic system managed through comprehensive totalitarian planning. On the other hand, it is argued that planning and democracy far from being incompatible with each other are indeed complementary. Plans would succeed only to the extent they evoke voluntary support of the people and only democracy can inspire popular support to planning. To quote Barbara Wooten : "It is the detail of planning and detailed execution of the plans that the ordinary citizen has most of real value to contribute." The tyranny of planning, she suggests, could be effectively avoided if "every incursion of government into economic planning is accompanied by creation of small local organs of citizens to cooperate in the execution of centralised plans. The last and greatest defence freedom under planning lies in the quality and attitude of the people... It is the citizens of a well planned society who are least likely themselves to fall victim to the dangers of planning and *vice versa*".

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certainly not the passport to political dictatorship. On the other hand, planning can give the right of effective choice of employment. A happy and fruitful marriage between freedom and planning can be arranged." Again, "if the many cannot reach the standard of the few, there is no inherent law of planning by which the few must be dragged to the level of the many".

<sup>4</sup>Djilas, the rebel Communist leader of Yugoslavia has in his book, *The New Class*, published in 1957, entered into an indictment of the communist system fully endorsing the fears. The communist bureaucracy is every bit as oppressive, materialistic and hierarchical as Capitalism. In his book, he assails not only bureaucracy but also the whole theoretical Marxist Leninist underpinning of communist state.

Distinction between centralised planning and decentralised planning seems to be a way of summing up the distinctions between comprehensive, imperative, totalitarian planning based on a set of physical compulsions on one side and partial, indicative, democratic planning based on the operation of the market mechanism on the other. This grouping of kindred types of planning may not always be accepted. It has already been pointed out earlier how some economists have maintained that planning even a socialist economy may be based on the use of price-cost incentives in the style of the market economy. On the other hand, planning in the western economies seems to be based on the premise that planning need not necessarily mean centralised ownership of means of production by government. However, there is no gainsaying the fact that there is the tendency of state ownership of economic activity to grow with planning. For effective planning, "the range of authority tends to grow wider and wider. At every level, the price of efficiency is centralisation and continuing widening gap between government at the Centre and the governed at the circumference".

A distinction is made between sectoral planning and spatial planning. Planning cannot stop at the level of the aggregates like aggregates of output, income or employment. Traditionally, plans are broken up into sectors—primary, secondary and tertiary. The primary sector covers agricultural and allied activities like forestry, fishery and mining. The secondary sector covers manufacturing while the tertiary sector covers commerce, trade, transport, banking, insurance, etc. Sub-plans for sectors become constituent units or components of the plan as a whole. However, the growth of regional sciences has brought into focus more and more the concept of area development, *i.e.*, development plans for each of the homogeneous units in which the country is demarcated. Such regions are sometimes called 'planning regions'. Spatial planning is helpful in geographic dispersal of the efforts and fruits of planning in a scientific manner. It is now more and more accepted that considerations such as full and integrated development of resources, social justice based on a fair dispersal of plan activity and advantages of optimum location can be achieved if, in addition to sectoral

planning, attention is also paid to spatial plans.

Planning is a continuous process. Development of natural resources or goals of planning, such as substantial improvement in levels of living or development of backward areas, can only be accomplished over a long period of time—say of two to three decades. At the same time, as Keynes said, in the long run we are all dead. We have, therefore, to grapple with the current situation in which we find ourselves and work out and implement concrete programmes of action. A programme of action, if prepared several years in advance, is likely to go out of date. It is, therefore, necessary to prepare perspective plans giving the long range trends and directions as well as *intermediate* plans say for a period of five years in order to provide a coherent set of programmes of which attention can be concentrated, and *annual plans* which provide the operational plans for the administrative machinery. The annual plans are integrated with the annual budgets. All these three are necessary in order to provide continuity of planning, for linking up past achievements with present activities and future directions.

The concept of rolling plan is also evolved. A five year plan is rolled on from year to year. At the end of the first year's operation, it is further revised and integrated with one more year's plan, thus deleting the year elapsed and suffixing one more year to the remaining four years of plan.

Finally, a distinction is made between the physical plan and the financial plan. In the ultimate analysis, a plan has to be physical indicating the increased production of various goods and services like food, sugar, milk or fruits or goods of social consumption, like drinking water wells, schools and dispensaries or durable consumer goods, like houses or basic producer goods, like steel, cement or fertiliser. The resources are also physical, like manpower, land, minerals, etc. But in our monetised economies the plans have to be cast in monetary terms. The resources have to be raised in financial terms and the national income or standard of living has also to be expressed in monetary terms. However, planners can suffer from the money illusion; increase in national income in purely financial terms may be completely illusory in an

economy which is under the grip of galloping inflation. Indeed, planners have to see that the ties between physical and financial planning are not snapped by phenomenal rise in prices which can cut at the very root of the planning process.

Different typologies of planning distinguished above arise out of different ways of looking at the system of planned economy. A planned economy combines within it different concepts of planning connected with each other. Thus, comprehensive, imperative, totalitarian, physical planning based on compulsory directions tend to go together and are characteristic of centralised planning in a socialistic economy. Similarly, selective, indicative, democratic, mainly financial planning through fiscal measures are characteristic of planning in market-oriented western economies. However, these should not be considered entirely exclusive of each other. Socialist planning in recent years, even in countries like USSR, has tried to make use of the market mechanism along with state ownership of key industries, and physical means of control and constraints over the private enterprise have been resorted to by the liberal planned economies. This is referred to as convergence between different economic systems. Characteristic of the present time, this convergence is necessitated by the dictates of modern technology. □

## *Methodology of Planning: Sectoral Planning*

Planning can begin either backwards from the goals to be reached or forwards from the resources available for development. In the first case, the attempt of the planners would be to see that the goals to be achieved are reached as economically and speedily as possible, *i.e.*, with the least possible expenditure of resources and in the shortest possible time.

On the other hand, in the latter case the objective of the planner would be to attain the maximum possible results by the exploitation of resources that are available within the plan period. In drawing up a development plan, the first task is to discover by surveying its natural resources, what geographical advantages and economic possibilities it may have.

The goals of planning would be either comprehensive or limited in nature. Where the concept of planning is limited to fill in the gaps or cure deficiencies of the economic system, the goals would be limited in nature and could be reached by specific programmes of public investment and public policies.

Where, however, the goals are couched in general or aggregate terms, such as a definite increase in the national income, output, employment, and its equitable distribution between different sections of the society and regions in the economy, or where the goal is an increase in the standard of living as indicated by per capita income, comprehensive planning would obviously be required.

Comprehensive development planning generally starts with the stipulation of a pre-determined increase in the level of living of the people. Broadly, the level is expressed in terms of per capita income, *i.e.*, by the division of the gross national product by the total population. In stipulating a higher standard of living, countries often make comparison

with the standard of living in other countries developing or developed, or they compare it with their own past. Such comparison in general terms could, however, be misleading since they do not take into account environmental variations and different scales of preferences, not to talk of price variations which could make mere monetary comparison meaningless unless they are corrected taking note of the price differences. Thus, limited expenditure on clothing in hot climates of south India may not necessarily indicate a lower standard of living as compared with that of people in cooler climates requiring warm clothing nor need absence of central heating in most parts of India and Asia necessarily indicate lower level of living. As Jagadeesh Bhagwati has pointed out, a refrigerator may not find a place in the scale of preference of the Eskimos.

Having allowed for these variations, it is often stated that fixing the goals of planning in terms of rate of growth is more a matter of political choice than of economic arithmetic. By political choice, of course, is meant a choice based on the articulation of the aspirations of the people. However, people hardly express their choice in terms of percentage of living and thus the choice regarding the increase in the rate of economic growth tends to be somewhat arbitrary in nature.

A choice regarding the rate of growth is a choice between the present consumption and the future consumption. The price of higher growth rate has to be paid in the form of postponement of current consumption. A higher production of consumer goods and services in future requires the higher capacity to produce the same and this can be had only by creating that capacity out of resources diverted from current consumption. Hence as Baughet says : "In determining the respective spheres of consumption and investment, a balance must be struck between the growing demand for consumer goods and the necessity of increasing nation's capital in order to produce more goods." Growth cannot be the result simply of optimum allocation of resources, optimum in the sense that there is equal return from last unit of investment in various channels of investment. The rate of investment has itself to be jacked up. Rate of growth,

therefore, becomes a conscious decision of the planners rather than a volition of individual members of the society.

Actually the process of economic arithmetic of planning begins with different choices regarding the rates of growth and the one which is more consistent with the availability of resources tends to be chosen as the more objective in character.<sup>1</sup>

Once the general rate of growth of gross national product is determined, it has to be compared with the expected growth of population growth in order to arrive at the net increase in per capita income.

Goals of planning, however, cannot simply be expressed in terms of an aggregate increase in the gross national product or even of the per capita income. The plan has to take into account the distributary aspects as well. If all additional income is simply taken up by sections of population who have already enough, the goals of planning would not have been attained. Indeed, in poor countries as in affluent countries, re-distribution of the gross national product is bound to be one of the significant objectives of planning. The redistributary goals may have to be expressed in terms of reduction in the degree of inequality or in terms of greater increase in the rate of growth of income of population in lower income groups as compared with those in the higher income groups.

One way of equitable distribution of income is to provide gainful employment for all. While the affluent countries are not free from certain degree or type of unemployment, under-employment or disguised unemployment are said to be chronic in all underdeveloped countries. Thus, the traditional sectors, like agriculture and rural industry, are supposed

<sup>1</sup>W. Arthur Lewis has stated : "...development planning begins not by projecting consumer demands but by seeking the most fruitful production possibilities". However the choice regarding rate of growth implies both. On the supply side it is connected with production possibilities which make the stipulated growth rate possible and on the demand side with a certain mix of capital and consumer goods, which makes the growth rate desirable.

to suffer from over-population or population pressure. In other words, there is a removable surplus population in agriculture. Even if some labour force were to be removed from agriculture, it would not necessarily reduce production. Economists explain this by stating that in such a situation the marginal product of labour is zero. Even though all the members of the community may apparently seem to be engaged in some activities, these are not necessarily fully productive.

Typically, in such a situation, there is a flow of surplus population from the countryside to the cities in search of employment. The cities exhibit the phenomenon of surplus population in the form of crowded slums, casual workers, vagrants and other elements of floating population. Provision of gainful employment to such people becomes a primary objective of planning itself.

Thus, the goals of planning may be expressed in terms of growth of gross national product, increase in per capita income of people belonging to lower income groups, and provision of additional employment opportunities.

Normally, employment is considered to be a by-product of economic activities. However, the employment generated by an economic activity would depend on how much capital intensive or labour intensive it is. More labour intensive the techniques of production, greater would be the employment opportunities that would be generated. The opposite view regarding employment-output relationship is to look upon provision of gainful employment to idle manpower as the principal strategy of increasing production. Thus, instead of looking upon employment as the function of output, output itself is considered to be the function of employment.

The aggregate targets regarding output, income, employment and their distribution cannot be fixed in a vacuum. If they are to be realistic, they must be connected with the economic happenings of the past and expected trends of the future. It is these which provide the basis of forecasting and planning. Forecasting is the indispensable preliminary to any plan. It establishes "probable upper and lower limits of expansion" and the main hypotheses and alternative models of development.

Assessment of the present for planning of the future is especially important where the economy is not fully socialised. In a socialist economy, based on collective ownership, the State has powers of compulsion which enable it, when fixing its objective, to pay more attention to technical considerations than to spontaneous economic tendencies; whereas in a western style economy, the authorities make careful study of the present behaviour of individuals, firms and groups, discover how the economy is developing on its own and prepare a general framework. Then and then alone do they draw up the Plan. Analysis and forecasts of spontaneous economic behaviour are considered significant for planning in western countries. Dutch and French forecasts are typical examples. In France, these analyses and forecasts provide a wide range of information on technical and economic topics with particular reference to economic forecasts of possible growth and provide the basis for government's general instructions for the preparation of the plan, which provide a framework into which the modernisation commissions must fit their efforts so that the plan shall hold together.

From the aggregate rate of growth or the growth rate for gross national product, it is necessary to derive subsidiary rates of growth for different sectors of the economy and ultimately for different goods and services.<sup>2</sup> As suggested by Prof. Colin Clark, the economy can be divided into three principal sectors, primary, secondary and tertiary. But these again are broad categories and the planners find it necessary to work out figures of growth rate in a more detailed manner for a larger number of sub-sectors in which the economy is divided. Thus, the primary sector has to be divided between agriculture, mining, forestry, animal husbandry, horticulture and fishery. The manufacturing sector is divided between large industry, small industry, cottage industry, agro-industries, consumer industry, machine

<sup>2</sup>However, Bauchet points out that in Russia the overall rate of growth is fixed after the sectors have been explored individually and does not seem to be a preliminary requirement. In any case, plan is rightly called a backward and forward process of successive approximation in which the overall and sectoral rates of growth will have to be mutually reconciled.

industry, basic industry, etc. Similarly, the tertiary sector is divided into sub-sectors like trade, transport, banking, insurance, etc. In addition to these is the infrastructure sector consisting of items like roads, health, education, irrigation, electricity, etc.

Besides the various sectors in which the domestic economy is divided, the planners identify export as a separate sector.

Some of these sectors may be leading sectors while others may be lagging sectors. For the leading sectors, the rate of growth would be more than the aggregate growth rate, while for the lagging sectors it would be little less. Which sector would be leading and which would be lagging would depend upon potentialities of each sector.

These sectors, however, are not independent of each other or of the economy as a whole. There is an inter-industry relationship or economic relationship between the various sectors. Thus, agriculture provides the inputs for industry and trade while the latter provides inputs for agriculture. The growth rate of each sector is dependent on certain specific inputs which are outputs of other sector.

The entire picture of growth rates of various sectors is exhibited by the planners in terms of an input and output tables in which the horizontal column would indicate the output of the sector which constitutes its contribution to various other sectors of the economy while the vertical column indicates the inputs to that sector from the rest of the economy.

The input-output table is an indispensable tool of economic planning. Because it is this which ensures consistency in planning. In the absence of the detailed calculations which go in the input and output table, the growth rates fixed for each sector in isolation, would not be realisable since they will suffer from deficiencies in various inputs.<sup>3</sup>

<sup>3</sup>However, input output tables have their own limitations which have been explained by the author of the technique, viz., W. Leontief himself and many other economists. Price changes and

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The sectoral output targets also provide the pattern of sectoral investment. The pattern of inter-sectoral investments is supposed to reflect the priorities in planning. Thus, a higher allocation of investible resources for agriculture as compared with industry and trade is supposed to indicate according higher priority to the former. This, however, would be a crude and even an incorrect way of understanding planning priorities. In the first instance, pattern of investment has to be compared with the sectoral pattern of the economy as a whole as well as growth potentialities of various sectors. Moreover, while the concept of priority may seem to indicate a competitive inter-industry relationship between the sectors, the input-output tables would seem to emphasise the complementarity between the sectors and the need to ensure consistency amongst the inter-sectoral targets.

There has not only to be an internal consistency in the productive system but there should also be consistency between the final mix of goods and services and the pattern of consumer demand.<sup>4</sup> The consumer incomes themselves arise out

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fluctuations in production levels and incomes may make the relationships exhibited in the input-output tables subject to a number of modifications.

<sup>4</sup>This raises the fundamental question whether planning is consistent with the concept of consumer sovereignty, extensively discussed by Barbara Wootten in her book : *Freedom under Planning*. The concept conveys three distinct ideas : (1) freedom of the consumer to distribute his purchasing power in any way he likes among all things available to him, (2) consumer choice should continuously determine pattern of production, and (3) consumer freedom to distribute money through time—freedom to choose between saving and *not* saving. All the three are connected. If full consumer choice is allowed, all their choices must add up to the right total of goods and services produced. In other words, “if consumer is to have what he really wants, production must follow the market. This is *not* possible in a planned economy. It is not possible for the *same* questions to be settled both by conscious and deliberate decisions of planners and unconscious, unforeseen results of the behaviour of millions of consumers acting independently of one another”. Planned decisions and unplanned market mechanisms are

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of the production system but the composition of consumer demands for the various goods and services is a matter of consumer choice. In an economic system, where the prices reflect the interplay of the forces of demand and supply, any inconsistency between the pattern of consumer demand and the pattern of production would lead to excessive prices for goods in short supply and fall in prices for goods in excessive supply. Where, however, prices are fixed by the planning authorities, this inconsistency would show itself in the shape of non-availability of commodities with deficit production and over accumulation of stock of surplus commodities. In both the circumstances, reappraisal of the plan targets becomes necessary.

While plan must attain consistency between production mix and demand pattern, it may well seek—indeed it may be its specific objective—to alter the pattern of demand itself in order to put in the hands of the poorer sections of the community more purchasing power and create more effective demand for goods of individual and collective consumption, such as mass consumption goods like food and clothing, and social services like education, health, working class housing, and welfare services. The content of the GNP is more important than merely its size. This is the strategy adopted for the *Fifth Plan* called the strategy of direct attack on poverty. The realignment of demand is brought about by employment generating investment in work projects and labour intensive enterprises.

The growth targets have also to be consistent with the resources—natural, manpower and monetary—available for planning. One of the key resources is capital. Once the output targets are determined, the capital resources required for the plan can be computed on the basis of the capital-output ratio. This is a well-known tool of economic planning.

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alternative ways of determining economic priorities. The Planner's argument against consumer sovereignty is that "substantial disparities in incomes of different classes makes money demand for an article an entirely misleading index of the intensity with which it is desired". The Plan comes in to see that no one goes without bread before a few get away with cake.

However, many economists have doubted the reliability or stability of the capital-output ratio or its suitability as a tool of economic planning. Besides, the capital-output ratio need not be taken as a datum. It may be altered by deliberate choice of plan policy as to the technology of production. A capital intensive technology would demand higher capital-output ratio while a deliberate policy of promoting labour intensive technology may justify an assumption of lower capital-output ratio. Indeed, it may be argued that there can be no capital-output ratio for the economy as a whole nor would it remain stable for the entire plan period. In spite of these, several qualifications regarding the use of the ratio, in practice, it has been found useful as a tool for working out requirements of capital for the economic development plan. The appropriate capital-output ratio would depend not only on the existing methods of production but also on policies regarding the promotion of production techniques—capital intensive *versus* labour intensive. In underdeveloped countries, where capital is scarce but manpower is idle, adoption of capital intensive technology in the name of modernity may be entirely inappropriate. Intermediate or labour intensive technologies will be more appropriate. Adoption of such technology may justify the assumption of low capital output ratio for assessing capital requirements. On the other hand, temptation for spectacular enterprise, and capital intensive modern technology is bound to consume more capital and provide less employment than warranted by unrealistically low capital-output ratios.

The capital requirements for investment targets of the plan have to be found out from the economy itself and, therefore, have to be consistent with the rate of savings. Savings are a function of income and propensity to save. If enough savings cannot be generated to raise capital resources on the basis of existing income and propensity to save, then either the plan has to be pruned or savings augmented by increasing the propensity to save or else the domestic savings may have to be supplemented by foreign aid. The propensity to save can be increased by re-distribution of income or by influencing consumer preference. Savings can

also be increased by increasing the rate of interest. The obverse of propensity to save is propensity to consume. When standard of consumption of the masses is already low, there is little scope for savings and hence the burden of raising resources has necessarily to be borne by the upper layer of well to do people in the society and since this is a very thin layer, the scope for capital formation in a poor country is strictly limited. Any attempt to force savings on people whose consumption standards are abominably low may lead to tension and strife. Plan aimed at growth has to be reconciled with the need to provide a minimum level of individual and social consumption to the masses. The hope for immediate increase in the consumption standard can itself be the greatest spur to plan effort. The "resolution of rising expectation of masses" has made all the more acute this tug of war between consumption and saving. Forced savings may be possible in a totalitarian economy. But even there, consumer resistance will manifest itself in many forms. In a system of democratic planning, planners will do well to curb their enthusiasm for a higher growth rate by heeding to the wise advice of W. Arthur Lewis : "Deficiencies of centuries cannot be made good in a single decade."

Another necessary input of planning is manpower—especially the skilled manpower. Manpower budget for various sectors will have to be prepared and adequate infrastructure generated to produce the manpower needed. This requires long range planning. Requirements of skilled manpower of various categories should be projected several years ahead and measures adopted to ensure adequate supplies.

The essence of planning methodology and economic arithmetic that goes with it is, therefore, to provide for consistency—consistency between the aggregate growth rate and the sectoral growth rates, between investment and output, between savings and investment, between manpower and growth rate, and between output and consumer demand.

In a market economy, mutual consistency is attained through pricing. In a planned economy, it is attained through the techniques of input-output tables and material balances. These, however, need to be revised as assumptions alter. Planning, therefore, is rightly called a process of successive

approximations. If the pricing signals are available to the planner, they could be used for realistic revisions in plans.

The plan, however, does not merely consist of the growth rates, input-output tables, material balances, or figures regarding savings and manpower. It is not just an exercise in economic arithmetic with mutually consistent figures. It also consists of policy measures necessary to ensure that the growth rates and targets are, in fact, accomplished<sup>5</sup>. This is more so when the economy is not entirely socialised and the fulfilment of targets depend on independent and voluntary decisions of private entrepreneurs. In the field of agriculture, the private entrepreneurs consist of thousands of small farmers. It is the behaviour of small units of production that has to be influenced by the planning authorities. The plan, therefore, has to consist of series of measures institutional, physical, fiscal and monetary to attain the plan targets.

Nor would the plan exercise be complete by fixing sectoral targets. These in turn have to be broken up for various commodities and services and finally in terms of individual projects which are both technically feasible and economically viable.

There is, however, a limit to which detailed planning could be attempted for every possible commodity and service. Certain amount of selectivity is inevitable. As Bauchet points out "...a distinction must be drawn between basic products and services and almost infinite variety of manufactured goods. In the case of the former, the programme must be carried out, under pain of endangering growth objective. In the case of latter, a certain flexibility is possible, even desirable, and products may be substituted for one another in the light of price trends and consumer preferences". In the former category must be included electricity, iron and steel, coal, cement, agricultural machinery, transport, etc. However, apart from such "highly concentrated branches of strategic importance, it will be unrealistic to attempt to draw individual firms in the system of planning" without making it very unwieldy.

<sup>5</sup>"What matters in planning is not merely figures but mainly policy. ...In the ultimate analysis, the plan is not the target figures but the measures which are to be taken to reach desired goals." W. Arthur Lewis, *op. cit.*

It has been noticed sometimes that while plans are prepared on the basis of elaborate exercise of input-output tables, material balances or linear programming, no attention is paid to the preparation of sound projects. As a result, the plan only retains the character of theoretical and econometrical calculations which are of a very limited degree of reliance, since the basic statistics and information on the basis of which plan calculations are made are themselves highly doubtful. Thus, the assumptions regarding capital-output ratio or propensity to save or input-output calculations are just guesstimates ! Plans made on such basis would not stand the touch of reality. In any case, without sound projects the plans themselves cannot be translated into action.


It is, therefore, suggested that the plan methodology itself should consist of compiling economically and technically sound projects into plans rather than working out aggregative plans without facts. Woolfgong Stolper, on the basis of his Nigerian experience, has dismissed ambitious aggregative plans as planning without facts.

Such "planning without facts" based on esoteric economic exercises of an aggregative nature, reflecting the high-faluting ambitions of the powers that be can lead to a disastrous waste of scarce economic resource. One of many such instances in underdeveloped countries is from Ghana—"Ghana is saddled with a nuclear reactor which some members of the new Government did not even know about when they came to power; it has huge cocoa silos that stand empty, unfinished and useless, it has a glass factory and two years of stock of imported glass; it has a steel mill designed to work on scrap in a country that does not produce scrap, it has Africa's longest aircraft runway built for heaven knows what purpose at Tamele in the Far North; it has a fishing fleet not yet paid for and losing money even before it is commissioned; and it has sugar factories not located near any viable sugar plantations."<sup>6</sup>

India's first Five Year Plan was based on a compilation of post-war reconstruction project rather than on aggregative calculations and it turned out to be a much greater success

<sup>6</sup>*The Economist*, April 30, 1980.

than the successive five year plans. Stolper recommended a plan based on projects to the Nigerian economy.

Facts needed for aggregative planning cannot be had for the asking; they have to be based on painstaking surveys both technical and economic. They include geological survey, mineral prospecting and market analysis. Till these are sufficiently comprehensive and reliable so as to provide facts needed for aggregative planning, it might be much better to go on the basis of approach of the preparation of sound specific projects. 

## *Methodology of Planning : Spatial Planning*

While in the previous chapter we have considered the planning methodology in national aggregative terms, it is obvious that, in a large country, planning has to be for sub-national units like the State or the Republic, the district, the block and the village. If one set of methodological problems arises in connection with the formulation of sub-plans for sectors, another set of methodological problems arises in formulation of sub-plans for these sub-national units. Just as there is the methodological problem of breaking up aggregative plans into the consistent set of sectoral plans, there is also the methodological problem of breaking up the national plan into a consistent set of plans for constituent units. Just as a view is expressed that rather than going from aggregative plans to unit plan we should derive the aggregative plan from economically viable and technically sound project plans, a view is also expressed that the national plan should be derived by aggregating village plans which must first be prepared.

This immediately raises the methodological controversy as to whether planning should be from above or from below. In one view, planning has necessarily to be from the above since only a national assessment of resources and needs can provide for a consistent national plan. On the other hand, it may be argued that only a village plan can take note of the local needs and local resources. What is more, from the point of view of democratic planning, *i.e.*, the involvement of people, local planning has an advantage over the national plan, since they can evoke better participation of the local people in the formulation and implementation of the local plans.

However, planning from below has not proved practical anywhere. For, one, major projects would necessarily fall beyond the purview of the local planners and it is these major projects that can be an engine of change. It is these which can make a significant difference to the economic development of

a country. Moreover, local planning tends to emphasise a mere enumeration of needs rather than of mobilisation of resources for the fulfilment of those needs. As a result, aggregation of local plans into a national plan may turn out to be a mere expression of aspirations without any possibility of fulfilment of such local plans. The exercise of aggregation may itself turn out to be futile.

While these are the disadvantages of planning from below, it is not as though planning from above would be without any problems. There is every likelihood that planning from above will fail to take note of the local resources and needs.

If planning from above is accepted, the methodology of disaggregation of a national plan into sub-national and local plans has to be evolved. One way of doing this would be to distinguish between national projects, regional projects and local projects. The regional plan would consist of the regional projects plus such of the national projects that fall within the region. Similarly, the local plans would consist of the local projects plus such of the regional projects as fall within the local units. In formulation of the regional and local plans while the general size would be indicated by the higher planning authority, their details would be left to be decided by the regional and local authorities. The regional and local authorities would also have to take into account the spread effects of national investments or those complementary to the national projects.

There is a question of the criteria for the classification of the activities which would fall in the central sector, the state sector and the local sector. The advocates of the principle of decentralisation would ask for the maximum number of projects being retained in the local sector, while the advocates of centralisation would like to reserve as many activities as possible for the central sector. Clear-cut economic criteria as to what must be centralised, and what must be de-centralised and what may be centralised or decentralised cannot easily be laid down.

Where there is a written constitution, the constitutional division between the federal and constituent units is available for identification of national and regional sectors.

Even after a methodology is evolved for breaking the

central plan into a set of local and regional plans, the question still remains of integrating plans from above with the plans from below. The plan from below must be based on an assessment of local resources and local needs. The plan from above would indicate a fraction of the national plan which is available for the locality and which is based on central appreciation of the local needs. Both these components have to be woven into an integrated and consistent local plan.

Local plans are not just divisions of the national plan into unit plans on an arithmetic basis. Each locality or region has its own potentialities and possibilities, its own resources and needs and the national plan has to take note of them both in the allocation of national resources and programmes and in their integration with the local needs and resources.<sup>1</sup> This is possible only if adequate attention is paid to regional analysis. In recent years, significant developments have taken place in the techniques of regional analysis which have developed into a separate discipline called regional science.

It originated with the theory of location of the economist Alfred Weber, who identified factors which attract or repel industrial enterprises to or away from a location. He identified the process of agglomeration and degglomeration. Up to a certain point, as more and more activities are started at a place, new activities find it advantageous to concentrate at the same location but beyond a certain point congestion and over-crowding makes the location less and less attractive thus setting a trend for the location of new activities away from the place. Built up from these concepts, Walter Isard and Christaller and other writers have evolved further elaborate theories of spatial planning.

Spatial planning is built round the concept of area development. The economic landscape develops according to

<sup>1</sup>Differentiation in relating a plan to local circumstances arising out of centralisation of planning process has arisen even in a smaller country like France. As Bauchet has pointed out, because of the centralisation of bureaucracy and the banking system, the consultations with local groups tend to become an empty formality. In spite of study of regional employment trends and attempts to localise certain branches of industry, little has been done to relate economic decisions to local circumstances. The preparation of regional plans must be entrusted (at least in part) to representatives of the regions concerned.

certain natural or economic factors which lend homogeneity to a region. Thus, economists have identified metropolitan regions, river valley areas and industrial belts, geographical complexes, mining areas, catchment areas, flood control areas, etc. Certain homogeneous factors like water, soil types, transport network, etc., make such areas appropriate units for economic planning on a regional basis.

These areas may not necessarily be co-terminous with the administrative boundaries. River bases or soil types know no artificial boundaries. A new idea is, therefore, coming up that instead of preparing local plans for areas co-terminous with existing administrative boundaries, planning areas should be demarcated and regional plan prepared for such areas. Thus, Khrushchev introduced an innovation in the Russian planning system when he divided the country into 55 planning regions.

There are nodal points for such planning regions. These points are the radiating centres of economic impulses. Some time these are called growth points or central places.

Regional science studies indicate that there is not just one single nodal point or growth point. There is rather a hierarchy of such nodal points, growth points or central places. The lowest of the hierarchy of the growth points has certain villages or communities attached to it like a cluster. A cluster of subsidiary central places in turn form a constellation round a growth point of a higher category.

The regional plan or the local plan instead of talking of the targets of economic activities for the region as a whole should rather identify the economic activities with reference to the network of growth points and the area of influence of such growth points. Only this would provide locational dimension to planning and help in giving an operational reality to them.

An important objective of spatial planning is to avoid apoplexy at the centre and anemia at the periphery. The economic forces tend toward conglomeration of industry at urban centres while the interior areas continue to be deserted due to outward migration. Excessive conglomeration may lead to urban sprawls of such a degree of concentration of population as to go beyond the farthest limits of creating social facilities like housing, transport and water leading to

evils like slums pavement dwelling, vagrancy, congestion in houses and drains and environmental pollution. W. Arthur Lewis has, therefore, rightly observed that a good development should contain measures to restrict further growth of cities with population in excess of 500,000 and develop population centres in the range of 5,000 to 50,000. □

## *District and Local Planning*

In spite of the importance accorded to the local planning, decentralised planning or planning from below in successive plan documents in India, the actual performance in respect of preparation of local plans has not been satisfactory. During the Second Five Year Plan, an attempt was made to prepare village plans first and then out of the village plans to prepare taluka or block plans and out of the taluka or block plans to evolve a district plan which in turn would be the basis of state plan and the national plan as a whole. This approach, however, never succeeded and indeed was hardly given even a proper trial. What came out of the exercise were long lists of requirements at the village level without any possibility of getting any adequate financial resources to meet these requirements.

The reasons for the failure of this exercise are apparent. The village *per se*, as an individual unit is hardly a viable unit for planning and development. Prof. John P. Lewis, the American economist described this preoccupation with village planning as mere 'villagism' which must be considered to be inconsistent with any rational or viable planning. Planning cannot attempt to provide self-sufficiency for every village. Planning must have a broader perspective and cannot be contained within the narrow confines of the single village economy. Planning has to be a general and comprehensive process for a much larger area—if not the nation at least the state or the region. Village, therefore, must find a place in the overall process of economic development of the region. In this process, some small villages may even disappear. There can, therefore, be no successful micro-planning at the village level at all. The economic fortune of the village is linked up with a much bigger micro plan.

If the village could not be the unit of horizontal planning, then what other area could be? After the advent of community development programme in 1953, it was advocated that

the block consisting of about a hundred villages should be the unit of planning and development. The block budget consisting in the initial year of the CD programme of some Rs. 15.00 lakhs with allocations for various sectors like agriculture, animal husbandry, irrigation, social education, youth development, rural industries, co-operative development, etc., provided nucleus for planning at the block level. It was expected that these resources would be supplemented by the departmental funds and public contributions. So much for the resources side. As regards the requirements, the block development programme began with a survey of every village and on the basis of these village surveys a block plan of requirements was to be chalked out. This exercise of horizontal planning at the block level was carried out during the first ten years of community development programme. This experience, however, showed that the idea of block as a unit for planning and development had not completely materialised. The development activity of the block level was confined, in the main, to the block budget. Even the plan funds for other departments were not supplemented with it. After the expiry of ten years of the period of community development programme, even the block budget disappeared. The panchayat samitis, the elected rural local self-government institutions at the block level, were not able to raise any material resources to substantially augment the development plans at the block level, and thus after the expiry of block period, the block organisation was left with limited number of schemes implemented by government at the block level.

The concept of block as the unit of planning and development was also related to the structure of the panchayati raj institutions. In the beginning, when the block was chosen as a unit of planning and development, the idea was that of the three tier local self-government institutions or panchayati raj institutions, at the district, block and village levels. Out of these, panchayat samiti at the block level should be the most crucial agency for local planning. However, later on when, in the states of Maharashtra and Gujarat, district was chosen as a more viable unit for planning and development, the zilla parishad emerged as the most important local develop-

ment agency. The development plans at the district level were, therefore, attempted in all those states where zilla parishad was the most effective unit. Zilla parishad had more resources, more competent technical staff and therefore had greater strength to attempt planning for development. However, the nature of planning attempted at the district level by the zilla parishads was on the same lines as that attempted by the panchayat samitis at the block level. It is true that the local sector at the zilla parishad level attempted to cover a much larger spectrum of schemes of development but even then mere combination of schemes within the budget of the zilla parishad and the allocations of the state government at the district level could not be considered to be an adequate arrangement of horizontal planning at the district level.

The unsatisfactory nature of the district planning has been recognised and some thought has been given by economists, planners and administrators to this subject.

One of India's leading economists, the late Prof. D.R. Gadgil gave a good deal of thought to this subject which he covered in his R.R. Kale Memorial Lectures on the subject of District Planning. Under his guidance, a District Development Plan was being prepared for Wardha district. In evolving this plan, Prof. D.R. Gadgil worked out certain concepts regarding the framework of the district plan. He identified four principal components which must be part of the district plan, *viz.*,

- (i) Development of natural resources of the district,
- (ii) Development of infra-structure facilities,
- (iii) Development of productive employment in the field of agriculture and industry, and
- (iv) Development of growth centres in the economy.

However, formulation of a horizontal district plan on such a basis would require adequate collection of data, interpretation of this data and formulation of concrete and feasible plans, programmes and schemes for the various components of the plan.

The district plan is a horizontal plan. It is, therefore, one form of 'Spatial Planning'. District plan formulated as

a by-product of vertical plan is not the same thing as the 'Spatial Plan'. The 'Spatial Plan' concentrates on the analysis of the local resources and works out measures for the maximum utilisation of these resources, for the production of needed goods and services. 'Spatial planning' combines geographical, demographical and economic approaches in the subject of planning.

In working out the spatial plan, the economists divide the aggregate economy into regions which are *homogenous* in characteristics—natural, physical, sociological, economic, etc. Thus, river valley areas, or urban rural areas under the influence of a city centre or a tribal area are examples of the earmarking of special areas from the point of view of spatial planning. The working of Tennessee Valley Authority under David Lilienthal has provided a pioneering example of spatial planning. In India also, in the Fifth Five Year Plan, 55 areas under the major irrigation projects have been selected for command area development. The major irrigation projects in this country created substantial irrigation potential but its utilisation was somewhat tardy in the absence of integrated irrigation development plans. The concept is, therefore, now accepted that an integrated area development plan must be prepared for the command area. Such integrated command area irrigation development plans will include a series of inter-connected items like the construction of canals, distributaries, water courses and field channels and drops, levelling and reshaping of land, drainage facilities, agriculture extension, training of farmers in irrigation development, prescription of an appropriate cropping pattern, supply of agricultural inputs, rural communication, marketing, storage, processing and town and country planning in the developing area. The irrigation development plan has necessarily to be evolved with the cooperative and conjoint efforts of the various departments like PWD, agriculture, cooperation, revenue, development, etc.

Another example of such a regional planning is the Drought Prone Area Programme. Some 70 districts in India are in the rain-shadow area and are prone to scarcity and famine. The old approach of extension and remission of land revenue, grant of tagai (or takavi) and supply of foodgrains at

concessional rates is no longer found adequate from the point of view of the objective of providing permanent insurance to these areas from the effect of drought. A programme has, therefore, been contemplated to restore ecological balance in these drought-prone areas by the development of soil and water resources in such a manner as to provide permanent insurance to these areas from the onset of drought.

A programme of this sort would include the identification of drought-prone areas, identification of water-shed areas within this dry zone, an intensive attempt in these water-shed areas to conserve water and moisture and protect soil through a minor irrigation, afforestation including planting wind breakers, soil conservation, pasture development, etc., and developing subsidiary occupations which are suitable for such dry zones, like animal husbandry, sheep rearing, sericulture, fishery, horticulture, etc. The drought-prone areas may run across several districts.

A third example of horizontal planning are the special programmes for areas along the western ghats which not only extend to several districts within the state but also over several states of Maharashtra, Karnataka and Kerala. Such horizontal plans for natural regions would be receiving increasing attention in the years to come and would form part of local planning.

Horizontal planning could exist not only for special areas with special physical characteristics, like agro-climatic conditions and homogeneity of soil and water resources, but would also exist for special groups of population who need special attention because of their neglect in the past.

The leading example of such planning is the Project for Small Farmers and Marginal Farmers and Agricultural Labourers. Special development agencies, in the shape of registered societies, have been established for formulation and execution of such projects in selected districts. These agencies prepare horizontal plans of an integrated sort for dealing with special problems of small and marginal farmers. The programme for the small farmers include their enrolment as members of cooperative societies, giving them short term, medium term and long term loans, subsidising 25 per cent of the loan, providing common projects like a common irrigation

well, common fencing or custom service centre and providing supplementary occupations like horticulture and dairy.

The concept of spatial planning is also linked with another approach evolved by the demographers, viz., that of identification of growth centres. The basic idea behind this is that development does not take place without some pattern and the pattern is that of a series of linked centres of growth, each growth centre providing a stimulus to the surrounding areas. An approach to planning which does not take into account the growth centres is bound to lose sight of the dynamics of economic development. The concepts of growth centre has received a great deal of attention from the regional scientists and considerable literature has grown. An attempt has also been made to apply these concepts of regional and district planning and to evolve concrete plans which make these growth centres the nodal points in the framework of planning. This approach envisages a planning hierarchy of growth centres. Four hierarchies of centres have been distinguished :

- (i) Central village providing minimum facilities to a cluster of villages like primary school or a health dispensary, etc.
- (ii) A service centre providing all basic facilities like a markets centre.
- (iii) A growth point providing market-cum-service centre to 5-10 service centres of category (ii). Such a growth point can provide scope for industrial growth.
- (iv) A growth centre serving 5-10 growth points with a number of secondary and tertiary activities and specialised facilities. These growth centres provide consumer products both finished and semi-finished of the lower hierarchy. They have a large number of processing activities. Planning for such growth centres would ensure best use of investment in a region since —
  - (a) it concentrates resources in growth centres in such a manner as to have the maximum spread effect, and
  - (b) they take into account linkages between the growth centres.

A pilot research project in growth centres was implemented as a Centrally-sponsored scheme during Fourth Plan period. The scheme envisaged setting up of a total of 20 research and investigation cells to evolve techniques and the methodology for the development of emerging and potential growth centres by providing social and economic overheads in delineated areas in terms of a carefully prepared inventory of local needs.

A major development in recent years has been the increasing role that the banks have been called to play in the socio-economic development of our country, particularly, after the nationalisation of the major banks. Before the introduction of social control and nationalisation, the banks were mostly concentrating in the urban or metropolitan centre and their involvement in the planning was somewhat limited. Now the concept of planning includes a combination of budgetary resources with banking resources. Banks are expected to provide institutional finance for economic development, even in the rural areas. The responsibility for such planning for area development through banking resources has been entrusted to the 'lead bank' which is expected to survey the area and identify the opportunities for economic development. Such credit plans by the banking institutions have to be inextricably and intimately related to the economic plan. The credit plan would provide extension of available banking funds to priority projects and needy individuals—be they small and marginal farmers or artisans. Such a credit plan must consist of economically viable projects since all banking funds have to be used on a commercial basis and have to be repaid with interest by the beneficiaries. There is a provision for lending by commercial banks at concessional rate of interest under the DIR (differential interest rate) scheme. Opportunities for use of banking funds would depend to a great extent on the facility made available by the general development plan in terms of technical assistance, organisational support and infrastructure facilities made available by the departmental and other agencies.

Even before the entry of the commercial banks in rural development, the cooperative banks were actively engaged in rural development. While the Primary Cooperative Credit Societies supported by the District Cooperative Central Banks

provided short-term credit for seasonal agricultural operations, the Primary Land Development Banks (PLDB) supported by the Apex Bank and the Agricultural Refinance and Development Corporation (ARDC) provided long-term credit needed for investment in land in activities like soil conservation, land reclamation, land levelling, well digging, horticulture, etc. The ARDC and the International Development Association of the World Bank, which supported these projects, insisted on the PLD Banks adopting the area development approach.

The district plans will have to integrate all these different approaches and components within an overall framework. The following components will, therefore, have to find a place in an integrated district plan :

- (i) Identification and full utilisation of natural resources,
- (ii) Full utilisation of the manpower resources,
- (iii) Building institutions and organisations and using them for maximum productive effort,
- (iv) Mobilisation of efforts of financial institutions for mopping up savings and their productive investment,
- (v) Building up of infrastructure facilities,
- (vi) Identification and development of growth centres,
- (vii) Provision of minimum needs of social consumption, &
- (viii) Plan for technological development in rural areas.

Each of these elements would have to be incorporated in the area or horizontal development planning for a district.

#### *Identification and Utilisation of Natural Resources*

The natural resources of an area consist of the soil, water, minerals, forests and marine products. In the words of Dr. Swaminathan : "Of the highest priority is more intensive work on the preparation of an integrated inventory of land, water, mineral and other natural resources, area by area, and the development of scientific plans for land and water use." A district can conveniently be divided into planning units in accordance with the preponderant characteristics of the natural resources available and for each of such units plans could be devised. Apart from the extent

and degree of certainty of rain-fall, the water resources available through the rivers and underground water resources will have to be taken into account.

The soils also differ in their characteristics making it possible for different crops to be grown. The black soils are useful for cotton and perhaps wheat and sunflower while the red and light soils are good enough for millets and groundnut specially if the land is somewhat sandy. Thanks to the discovery of new varieties of short-duration seeds, it has been possible to grow more than one crop in a season. It is possible also to scientifically analyse the soils by taking soil samples. Cropping pattern and planning will have therefore to be made on the basis of a comprehensive understanding of soil, water and climatic conditions.

Just as an understanding of the soil resources is possible through soil survey and soil testing, the availability of ground water resources can also be assessed by ground water survey which is now being carried out comprehensively throughout the districts. The district plan, therefore, must take into account the ground water resources and programme the number of wells—dug or bore—that could be attempted on the basis of this water potential. In areas under major irrigation projects, conjunctive use of water resources can be attempted.

Planning for agriculture will have to be supplemented by planning for dairy, horticulture, sericulture, fishery and other supplementary occupations.

In all coastal areas, and the areas with large rivers and ponds, fishery development planning has to be attempted.

Development planning, whether for agriculture, animal husbandry or fishery, has far-reaching backward and forward effect. Thus, for planning for agriculture development, it is necessary to plan for a series of inputs like seeds, fertilisers, pesticides, implements, etc. Planning for horticulture also requires supply of saplings, suckers, etc. Planning for dairy requires supply of pedigree animals, artificial insemination centres, forage and feed for animals, veterinary services, etc. Similarly, planning for production must be accompanied by planning for marketing, storage and processing or else planning for production may face frustration.

It has been recently realised that planning for agriculture

must also be the planning for different groups who participate in farming, viz., large farmers, small farmers, marginal farmers, tenants and agricultural labourers. It is, first of all, necessary to identify the farmers belonging to the various groups and pay special attention to the small and marginal farmers and agricultural labourers. To the latter, both for supply of inputs and sale of output as well as for productive operations, special facilities on a group basis have to be provided. They have to be brought into the main stream of production.

The above mentioned analysis will show that though agriculture falls within the primary sector of the economy, planning for agriculture and allied productive occupations involves planning for secondary and tertiary sectors in addition to planning in the primary sector. Agriculture development necessarily involves development of marketing and agro-processing industries, development of industry and supplying of agricultural inputs and development of social enterprises, like marketing and distribution, banking and insurance.

#### *Full Utilisation of the Manpower Resource*

If land is the first factor of production, labour is the second. Labour, i.e., manpower resources need to be developed and utilised in a planned manner so as to get the maximum productive benefit from the skills and talents of the manpower. All the strength, the skill and the capacities of the manpower have to be fully utilised. It is true that most of the manpower is engaged in agriculture and possesses only traditional skills. But different agriculturists do specialise in different types of operations, there are some groups who specialise in horticulture, others in sheep and dairy development, etc. All these traditional skills have to be identified and will have to be further developed through a number of short duration training courses in modern technology, educational tours of the farmers and agriculture extension.

At the same time, skills of artisans will have also to be identified so as to make use of them for modernising agriculture. Agriculture requires new implements. These are not available but could be locally manufactured. The traditional

artisans should be trained, organised and financed for production and supply of such agricultural implements like improved bullock cart, or seed and fertiliser drill, or the various implements required for re-shaping of land in irrigation command areas.

The technology of the future will demand collective action by farmers in a village or a water shed area for efficient adoption of modern techniques. Farmers and artisans must be trained in techniques of collective management so as to make the maximum use of manpower and natural resources.

Education has spread in rural areas and more educated manpower is now being available in the country side. Educated man seems out of place in rural surroundings. However, if properly motivated and reoriented, he could be an asset in the rural areas. If the farmers' sons are educated in agriculture or veterinary services, they could be direct agents of change. Development plans may make use of the services of such educated men and after giving them necessary training put them into use in implementing the programmes of rural development. Unfortunately, there is less of advanced agriculture education and more of general higher education which is being availed of by the farmers' sons. But even here, the farmers' sons, though qualified with general degrees, may work to build up rural institutions like agricultural workshops, cooperative societies, tractor and distribution centres, etc., rather than jostle for clerical posts in the cities. We must make full use of the knowledge of the available talents of the rural people. It has to be borne in mind that the industrial revolution was ushered in Great Britain not through the efforts of modern scientists but through the innovations made by mechanics and artisans.

#### *Building Institutions and Organisations and Using them for Maximum Productive Effort*

The entire development process may be looked upon as the end product of the efforts of individuals and institutions. A network of institutions are needed to initiate support for the development process. In the process of local planning, the institutions which are to play a prominent role are the following:

- (a) At the village level, the village panchayat, primary cooperative society or the newly set up farmers' service society and auxiliary institutions like the youth and women's clubs, etc.
- (b) At the tehsil/block level, the tehsil/block development board, land development bank, branches of commercial banks, taluka agricultural produce marketing society, the Agricultural Produce Marketing Society (APMS), etc.
- (c) At the district level, the zila parishad, or district development council, district central cooperative bank, commercial banks, etc.

Each of these institutions has a definite role to play and each must prepare a development plan for its own area of activity. Thus, the village panchayat, the tehsil development board and the zila parishad or the district development council have to produce general development plan while the cooperative and the commercial banks have to prepare credit plans. The marketing society and the agricultural producing marketing societies have to produce marketing plans. Finally, youth and women's institutions and similar other institutions may prepare their plans limited to their purposes.

In addition, for the city and town areas, the corporations or the municipal councils have to produce plans for their areas and where there is the linkage effect, an integrated town and country plan must also be prepared.

#### *Mobilisation of Efforts of Financial Institutions for Mopping up Savings and their Productive Investment*

The role of credit plans as complementary to the economic plan and the planning to be undertaken by the cooperative and banking institutions has been mentioned earlier. The cooperative credit institutions sometimes look upon themselves as mere lending institutions, channelising the credit reimbursed by the higher credit institutions reaching right up to the level of the RBI and the ARC. The commercial banks work only in a limited area around their centre. As a result, no attempt is made to assess the income generation in the local economy and the savings of the local community.

The banking institutions must make an attempt to mop up savings that could be generated in the rural economy which in turn could be re-cycled through investment for the development of the economy. Such a complete circulation process consisting of income generation, savings, investment and further generation of income has not yet been attempted for the rural economy, by the banking institutions, though it is a vital part of an integrated horizontal plan.

### *Building up of Infrastructure Facilities*

Development of agriculture, industry, marketing, processing and financing of an area is not possible without the infrastructure of roads and electricity.

Road plan, consisting of the national and state-high ways, inter-village communication and village roads, must be prepared and implemented in a phased manner. In the absence of such an integrated planning, it is seen that roads are taken and left half-way with stacks of metal lying unused. Another example is that even large villages surrounding a marketing centre remain unconnected by proper communication. Irrigation development is not possible without ayacut roads. Transport is rightly considered to be the crucial factor in the development of the economy. The green revolution in Punjab is attributed not only to productive effort but also to the existence of a good network of rural communication.

Rural electrification is crucial for agriculture development, industrial development and improvement of the style of rural life. While some areas have been fully covered through rural electrification, many others are in much inferior position. Regional and local planning should bring out such regional disparities and correct them.

### *Identification and Development of Growth Centres*

The concept of hierarchy of centres has been discussed earlier. The nodal points in the rural economy consist of city and town marketing centres which many a time coincide with the taluka headquarters but would also include other municipal towns and large villages in the area. A forward looking plan should be prepared for each of the centres so that they provide the focus of the development of the area around such centres.

*Provision of Minimum Needs of Social Consumption*

All the items dealt with so far, have aimed at the development of resources of the local economy. As these resources develop, they would automatically facilitate availability of goods and services and would provide gainful employment. However, in addition to the individual consumption of goods and services, there are certain items which are of the nature of social consumption and which have to be provided through general development plans. These items of social consumption include drinking water facilities, schools and health centres. These have vastly expanded in recent years and it is time to cover the areas which have been left out in the past.

*Plan for Technological Development in Rural Areas*

The scientists have realised that the research in science and technology should not be carried out merely on an all India basis but it is high time that the research is undertaken at the local level.

All these eight components must form necessary part of the local development plan. But these are complementary components. Each component no doubt must be developed as an item in its own right, but each must also be integrated with the other components. For example, development of natural and manpower resources should go together but the development of these resources would require infrastructure facilities and various other services and hence the plan for the development of natural resources and manpower resources must develop along with the plan for infrastructure facilities. In all aspects of integrated development, institutions like panchayat and cooperatives have to play a crucial role.

Such horizontal district plans cannot be formulated without certain degree of expertise in the technology of planning. It was felt that it would be difficult for a busy administrator like the deputy commissioner/collector under continuous pressure of day-to-day work to find adequate time necessary for formulation of such a plan.

Attention was, therefore, given to the strengthening of the district machinery of planning by the appointment of the

district planning officers and training them suitably in the techniques of district planning.

The person appointed as a district planner must combine in himself both academic and administrative talent. This is not easy to obtain.

Though the concepts of an integrated plan for local areas, as analysed, have not been unknown, we have yet to succeed in preparing an integrated development plan. We have to make continuous effort to get over the weaknesses in the planning mechanism, which have taken many forms. A lot of statistical data is generated but it is not always up-to-date, and even when it is available, it is not assimilated and linked up with design of development, because of the lack of capacity to use statistical data in an intelligent and meaningful manner for development planning. There are district statistical officers at the district and taluka level but they are engaged in the routine tasks of compilation of the data and sending it to their headquarters. They should be trained and motivated to use the data for local plan. The statistician must make himself useful to the administrator and the planner. But the planner and the administrator must have also the capacity to use the data. Apart from the officials like the deputy commissioner, the district planning officer and the district statistical officer, the other participants in the district planning machinery, *viz.*, panchayats and cooperative institutions, have never taken interest in a rigorous process of local planning. Indeed, this indifference to local planning has to be found in the local community itself. The district headquarters have a number of educational institutions and competent people, students and teachers, natural scientists, social scientists and social workers, but unfortunately very few have taken interest in the development process and planning of their area. Thus, the administrative machinery, the local government institutions and the leaders of the local society have not been as keen about the local horizontal planning or spatial planning as they ought to have been. They have to come together on the planning forum and combine their intellectual power and thinking faculties with their intimate knowledge of local area and community to [formulate scientific development plans. □

# *Project Planning*

The disaggregation of the national plan, whether sectorally or spatially, has ultimately to descend to an individual project in some particular field of economic activity. Project planning is, therefore, rightly described as the final point of plan formulation and the first point of plan implementation. It is the vital link between planning and implementation.

From an economic point of view a project represents the investment of a specific chunk of the scarce resources of the economy for the production of a flow of goods and services. Every such investment is a cost and a risk. But the cost becomes worthwhile and the risk becomes a calculated risk if the investment in the project is preceded by the formulation of a project report.

Project report is a comprehensive and systematic compilation of data, technical and economic, pertaining to the project so as to provide a rational basis for the assessment of the costs and benefits, advantages and disadvantages, which emanate from the specific dose of investment embodied in the project.

Economic experience of development planning in under-developed countries has repeatedly shown how in the absence of careful project planning, national resources are wasted.

A project is embedded in an economic environment. It does not exist in a vacuum. It is a radiating centre from which impulses flow to the rest of the economy. At the same time, the success or otherwise of a project is itself influenced by the factors in the economic environment. A project report has not only, therefore, to deal with the project *per se* but with the economic relationship between the project and the economic system.

The project report has to go through a number of stages like identification, formulation, appraisal, supervision and evaluation. A project to succeed must be intelligently identified, scientifically formulated, competently appraised, efficiently

implemented and rigorously supervised if it is to pass the test of a successful project.

A project could be identified either from the source or the destination. Thus, different types of available natural resources would provide the source of raw material for the projects and thus suggest the possibilities of setting up such a project. On the other hand, the market should also provide indication of the possible opportunities. A project may be a part of either a sectoral complex or a geographical complex. It may either be completely related to the domestic economy or could be inspired by the export possibilities. In any case, once a possibility suggests itself, the project could be identified tentatively.

Then follows the need for a pre-investment survey on the basis of which preliminary project report has to be prepared indicating various possible alternatives. The preliminary project report thus enables the selection of the final choice of the project. After the choice is made, the stage for a detailed project (DPR) report is set. The detailed project report has to consist of three parts—project engineering, project economics and project organisation.

Project engineering includes the details of the production process, plants and machinery, site and buildings, schedule of construction of building and erection of machinery and supplementary works, like water supply and electricity.

Project economics begins with the market analysis or demand analysis. Indeed, identification of demand and market is the starting point of project planning. Demand is the function of income and price. At the prevailing price, some part of the demand might be unfulfilled. It is the unfulfilled demand that has to be met by the new project.

The data regarding the market analysis has to be based on the information made available by the surveys both of facts, attitudes and opinions and consumer scales of preferences. The time series of the past could be projected in future by extrapolation. However, this cannot be done blindly since the future picture might be different from the past. There might be changes in population, income, scale of preference, elasticity of demand as a result of various external factors. These must be taken into account in forecasting the future demand for

goods or services which the new enterprise seeks to provide.

If the market survey establishes an adequate demand for the product of the new project then comes the question of determination of size and location. The size has to be limited to size of the unfulfilled demand. However, if the unfulfilled demand is less than the minimum technical size, the project cannot be established. If, however, the unfulfilled demand is much greater than the technically feasible size, then a choice has to be made as between the alternative sizes of plant and machinery. The economics of various sizes has to be studied and the optimum size has to be located.

As regards location, certain technical considerations have to be taken into account like the availability of water or electricity or minimum administrative and postal facilities. However, if these basic factors are available, the choice regarding location has to be governed by consideration of an optimum location. In deciding this, the cost of transport of raw material has to be weighed against the cost of sale of finished products. Some enterprises have to be near the place of the production of raw material. If the raw materials are bulky or costly to transport or are of perishable nature, or lose in value in transport, like sugarcane, the location has to be near the place of production of raw material. On the other hand, some other projects are governed by the advantages of marketing the finished products and tend to be located at big consumer centres in big towns and cities. In determining the optimum, the size and location benefits are to be weighed against costs and that choice has to be made where  $\frac{b}{c}$  or  $b-c$  is the maximum.

The next item in project economics is the assessment of investment---fixed and working capital. The fixed capital consists of plants, machinery, building, etc., while the varying costs consist of the cost of material, labour, fuel charges, water charges, rent, etc. Administrative overheads will have to be considered as fixed costs.

Then comes the need for preparing the project budget for the entire project period showing for every year additional costs and additional benefits from the project. In the initial years, the additional cost may exceed additional benefits. But

if over the entire project period benefits exceed the cost the project may be economical. One formula to determine whether economy of the project is sound, is to arrive at the present capitalised value of the flow of goods and services. If this exceeds the project investment, the project may be economically worthwhile.

The last item in project economics is the determination of the source of finance for meeting both the capital cost and the varying costs. Some part of the capital is owned while the rest is borrowed. Every enterprise must have a proper debt-equity ratio. If the debts are excessive and high interest rates on them have to be paid, the project may not be worthwhile.

The third part of the project report is regarding organisation and management. The organisation may be in the public sector, private sector or the cooperative sector. It has to have an adequate body of membership or share-holders. Its management structure has to be sound. It must have the necessary technical accounting and managerial staff who should be properly qualified. The procedure of recruitment and the structure of salaries and other allowances has to be worked out. An organisational chart, a manpower plan and a job chart has to be prepared.

The above-mentioned is only a general outline of the project report. But a project report has to be tailor-made and has to meet the unique requirement of every enterprise.

If a shelf of economically sound and technically feasible projects is kept ready, it would be possible to fill up the details of the framework of a general investment plan. Without project reports, a plan merely in terms of investment cannot be operational. □

# *Substance of Planning*

The substance of planning consists of programmes of production and distribution in all the three sectors of the economy. They are directed towards the realisation of goals of planning, *viz.*, greater production and employment and more equitable distribution. Greater production is sought to be accomplished by augmenting the supply of factors of production involved in the production process and by raising the productivity of these factors by the application of new knowledge made available by research, *i.e.*, by the application of science and technology, and by better organisation in the form of a variety of institutions.

## PRIMARY SECTOR

The sector of primary production consists of agriculture, animal husbandry, fishery, forestry, sericulture, etc. Agricultural sector is rightly considered basic to planning for economic development. As Barbara Ward puts it, though agriculture and industry are essentially interdependent—Janus head of a single productive process—the launching pad is agriculture. The factors of production for agriculture include soil and water resources, manpower, bullock power and mechanical power, in addition to solar energy and inputs consisting of seeds, fertilisers, pesticides and implements. The soil has various characteristics which are suitable for different crops and one of the objectives of the scientific agriculture research is to prescribe a cropping pattern which is suitable to the agro-climatic conditions. Secondly, the soil needs to be developed, reshaped, and reclaimed, wherever necessary, either by the application of chemicals or by drainage. The water resources, firstly, consist of surface water which is harnessed through irrigation projects—major, medium and minor—like dams, diversion weirs, bunds, etc. The major irrigation dams consume substantial plan resources but are reckoned amongst spectacular achievements of

planning. Thus Khuzistan, a vast desert valley along Iran-Iraq border, has begun to bloom again, thanks to the construction of a mighty dam storing the water of the Dez river. Mighty irrigat on projects like Bhakra-Nangal, Tungabhadra and Nagarjukonda are the 'temples of Modern India'. The sub-soil water is harnessed by dug wells or bore wells, fitted with pumps which are serviced either through bullock power, diesel pumps or electric pumps. The agriculture inputs are sought to be improved by high-yielding and hybrid varieties of seeds. In recent years, there has been a break-through in agriculture through a genetic revolution brought out by the so-called miracle seeds like mexican varieties of wheat, such as sonora sonalika, choti lerna, safed-larma, larma Rozo, or U.P. 301; improved variety of millets like CHS. series of jowar, improved varieties of rice like I.R. 8, I.R. 20, etc., or improved varieties of cotton like hybrid 4. New types of fertilisers and pesticides are also being manufactured. This is the chemical revolution in agriculture. For a long time, traditional agriculture depended on compost and green yarn manure which could contribute only limited amount of nitrogen or other nutrients to the soil. Chemical fertilisers are able to contribute more effectively to the building up of productivity of soil. The chemical fertilisers, however, have different contents of nitrogen, phosphorus and potash and these different combinations have to be applied according to the deficiencies in the soil as found through soil analysis conducted at the soil testing laboratories.

The input of seeds, fertilisers or pesticides, development and reclamation of land and construction of wells require a large amount of investment which the farmers may not be able to meet out of their limited incomes which are rendered uncertain through season's variations. Financial institutions are, therefore, required to give the necessary amount of short term, medium term and long term credit. The financial institutions may either be cooperative or commercial banks. A network of agencies for the distribution of input and credit reaching down right to the village level are required to service agriculture.

Agriculturists also must have necessary incentive. The two I's inputs and incentives are equally important. The

incentives are to be provided by the market for agricultural products. Hence, marketing and processing institutions are required. Where there is a public distribution system, substantial part of surplus production may be bought by public agencies. They must, however, offer reasonable return or else farmers will withhold production and the long term effects may be damaging to agriculture. The policy to squeeze agriculturists of their surplus at low prices for industrial development adopted in the early years of Soviet economic development, known as war communism, did long-term damage to Soviet agriculture.

In a socialist economy, even land as a primary means of production can be socialised through the co-operatives, collective or State farms. The Russian State farms (Sovkhozis) or Collective farms (Kolkhozis) are of a giant size—each a thousand of acres. They are described as veritable grain factories. Forty years after Stalin socialised Russian agriculture, Soviet farming has embarked upon another major scheme of reorganisation. The so-called Brezhnev Plan was outlined in the Communist Party plenum in December 1973. According to the scheme of reorganisation, collective and state farms were to give way to larger and more integrated 'rural units' with increased specialisation in livestock, breeding, fodder production and other food output. These large farm conglomerates would be integrated structures around bigger farm 'townlets'. The new farming system would also have to accomplish social tasks. They would be large self-supporting rural communities better provided with health and recreational services.

The Israeli forms of collective agriculture are perhaps the most successive examples of collective effort inspired by a revolutionary fervour. In Kibutz, the entire land and means of production are socially owned and managed. Even the children are brought up together and there is a common kitchen and dining hall. In Moshav Shitufi, the cultivation is individual but collective services are made available. In between stand the Moshavs. However, not all socialist countries have socialised agriculture though they might have socialised industry or distributary trade. The difficulties in socialising agriculture arise out of the facts that the number of units of agricultural production

are large and scattered and the traditional attachment of the farmer to his land is deep rooted. In such conditions, it is felt much better to allow the private individual units of production, to continue but at the same time provide farmers, particularly the smaller and marginal farmers with extension facilities and organise them for the purposes of supply of services and credit into cooperative institutions.

However, if agriculture is not socialised, other agricultural changes are needed. Agricultural reforms needed for liberating the farmers from the clutches of landlords and money-lenders or other intermediary interests are considered to be indispensable. This is achieved through legislation for the abolition of landlordism and system of protective tendency and making it possible for tenants to secure their ownership rights. Japan is a successful example where agriculture is modernised retaining individual cultivation while providing services through multipurpose cooperatives.

Like agriculture, dairy industry can also be organised on a cooperative basis or it could form the activity of the State. AMUL in Gujarat has provided a successful pattern of cooperative dairying in India.

Animal husbandry resources consist of cows, bullocks, buffa loes, sheep, poultry and other animals. Cattle are required to provide bullock power where mechanical power is not available and for dairy development. Dairy and other animal husbandry occupations can provide a useful supplement to agriculture or they could be developed as independent occupations in their own right. The animal husbandry programmes consist of scientific breeding, weeding, tending and feeding. Breeding through artificial insemination has become an accepted programme of scientific animal husbandry. But this again requires organisation in the shape of series of artificial insemination centres whose services are readily available to the farmers. At the same time, indiscriminate breeding has to be eliminated by castration of scrub animals. The feeding programme must be based on the growth of nutritious grasses like lucern and burssem and preservation of grass through silage method. The animals are liable to be affected by severe diseases like Rinderpest and foot and mouth diseases and need to be protected through inoculation. These services

are to be provided by veterinary dispensaries.

The development of poultry and sheep, like the development of cattle, has also to be based on a programme of scientific breeding integrated with other activities like improved breed, prevention and protection from diseases, technical supervision and marketing. Thus, among the superior breeds of poultry are Rhode island, which is a meat variety, and white leg horn, which is recommended for eggs. New techniques like deep litter methods have also to be widespread.

In sheep breeding, exotic varieties like marino rams are used for cross breeding purposes. The shepherds are normally a wandering lot and their training and organisation has to be a special effort.

Horticultural development requires a vigorous programme of supply of seedlings, arrangement for marketing of fruit, cold storage, dehydration, protection of crop from disease, introduction of techniques like grafting, budding, etc. The horticultural development requires long range planning because of the time taken for the growth of plantations of fruits like coconuts, arecanuts, mangoes, and apples. Fruit and vegetable development is a significant part of development planning because of their contribution to raise the levels of nutrition. Horticulture may either be an integral part of agricultural activities of a farmer with some portion of land devoted to fruit or vegetable or it may be an independent enterprise in itself.

Fisheries can be either island or marine. Here, as in other sectors of agricultural activity, development planning would include introduction of new technology, including use of nylon nets and trawlers for deep sea fishery, augmenting fishery development in tanks by induced breeding, arrangement for cold storage and transport, organisation of fishermen into cooperatives, marketing and processing of fish, setting up bone-meal plants, etc.

The planning for the production of milk, eggs, fruits, vegetables and fish has to be linked with nutritional planning so that the poor, vulnerable sections of the community who find protective food beyond their purchasing power are able to secure it through a programme of free or subsidised supply.

Like horticulture, afforestation and plantation also require

long range planning. Afforestation is particularly significant for a country's economy from the point of view of maintenance of ecological balance. Destruction of forest can lead to large scale erosion of soil and silting of tanks with disastrous effects on economy. In addition to the protection of natural forest, attention has to be paid to the building up of artificial forests as in Japan where in spite of population pressure, nearly 75 per cent of the area is under forest.

Plantations of tea, coffee, rubber are of the nature of industrial enterprises. They require considerable investment and they are considered to be bankable propositions.

The agenda of agriculture planning should consist of the following programmes of action:

1. Fundamental and adaptive research.
2. Extension of the research to individual units of production.
3. Supply of agricultural inputs and credits.
4. Development of agricultural productivity through investment in irrigation, electrification and mechanisation.
5. Provision of infrastructure facilities like road, communication and storage.
6. Incentive through pricing policies and marketing and processing facilities.

Through these programmes, it is possible to transform traditional agriculture with stagnant income and low productivity into modern dynamic agriculture with rising productivity.

## SECONDARY SECTOR

Industrial planning has to be considered for various sub-sectors of industry like large scale industry, medium industry, small industry and rural industry. The industrial development depends on mobilisation of capital, supply of raw material, availability of necessary machinery and plants and technical manpower. Various services like designing, marketing, credit and insurance, and organisation and incentives have to be provided. Industries in fields like steel, coal, ship building, locomotives, airplanes are so large that even in non-socialist economies they are owned by the state. The plan should

include proposals carefully worked out for each public sector enterprise, estimate of its investment, employment, output, potential benefit, financial or otherwise, etc. Where private sector is fairly large, similar specific targets, industrywise, may have to be worked out for private sector enterprises also since the rate of economic development depends more on what happens in the private sector than it does on expenditure in the public sector.

Planning of small scale industries is normally left to individual entrepreneur. But they require considerable promotional assistance by public agencies and banking institutions, like necessary allotment of raw-material and finance and technical supervision.

Industry and agriculture are interlinked in a huge process of agro-industrialisation, penetrating to the depths of the economy. Thus, industry demands agricultural raw materials while agriculture requires industrial inputs like fertilisers, pesticides and implements.

### TERTIARY SECTOR

Both industry and agriculture various facilities of the tertiary sector, mainly supply of power, transportation facilities and banking services which also need to be planned in an integrated manner.

Power planning has to be a long-term proposition. Power plants take years to complete. They have to be so planned that supply of power keeps pace with demand. The demand for power in developing economy increases at an increasing rate and if it is not planned in advance, power can be a basic constraint of economic development. Power projects can be either hydro-electric or thermal or atomic. Since hydro-electric projects cannot work to full capacity when rains fail to fill up the reservoirs, thermal power has to fill in the gap. Generation of power has to go hand in hand with the planning for the transmission of power and, in the drive for improved productivity, elimination of transmission losses has also to find a place.

Transport plays a key role in economic development. Economists like Kindleberger accord it a central role. Economic historians like Lilian Knowles have pointed out that

transport played a key role in the commercial and industrial revolution of Great Britain and other advanced countries. Transport can take place either by railway or by road through trucks or through boats across rivers or canals. While railway carriage is normally a state monopoly, road transport is in the private sector. But planning for transport arrangement on any of the three routes depends on planning for the manufacturer of rail carriages or trucks.

Planning for banking development has to take into account rising income and consequent increase in potentialities for deposits and advances for agriculture and industry. Banking institutions tend to be concentrated at the metropolitan centres and deliberate planning is required to direct them to new and developing areas which for the moment may appear to be backward. A systematic programme of branch expansion is, therefore, essential.

If roads, transport, irrigation, power projects and electrification provide the economic infrastructure, education, health and housing provide the social infrastructure. The educational system has to provide universal primary education, secondary and higher education and technical and vocational education. Education may be an end in itself but it is the educational system which has to provide the reservoir of manpower, with requisite knowledge and skill for economic development. The plan has, therefore, to ensure that the economic development does not suffer in the absence of manpower of right quantity and quality and at the same time see that educational system does not throw up products which cannot readily be absorbed in the economic system, thereby giving rise to the phenomenon of the "white collar unemployment". The traditional educational system evolved by the erstwhile colonial rulers of developing countries may not quite be appropriate to the tasks of economic development. In particular, there is need to correct the bias of the educational system towards purely liberal education. Technical courses in agriculture and industry and vocational courses are needed for scientific agriculture and technological change.

Health, like education is an end in itself as well as a means of economic development. Healthy manpower is also more productive. Sickness interrupts production and by

sapping energy reduces productivity. But by sharply reducing mortality rate as compared with the birth rate, measures for health improvement tend to raise growth of population rather sharply. Health programmes would involve both preventive and curative measures. Among the preventive measures are included provision of drinking water supply, environmental sanitation and immunisation. In most underdeveloped countries even safe, potable water supply is not available to many rural communities. Obviously, this is the first charge on any development budget. The curative services are not available even to a minimum possible extent. Medical personnel tend to concentrate in cities, leaving rural areas to the mercies of quacks. Hence the need for setting up rural health centres. The advanced countries have already provided comprehensive health insurance schemes. It could be a long time before anything of that standard of health service is set up in underdeveloped countries.

Housing may have less urgency and expenditure in tropical countries compared with cold countries. But in most developing countries, it is so inadequate as to require huge investment. The housing problem can be dealt with to a small extent by public housing but bulk of the housing has to be private and supported by institutional finance. With the migration of rural poor to the cities, the latter suffer from slums and overcrowding and city housing becomes an important matter of public policies and programmes. Slum clearance schemes find a place in planning but the problem cannot be tackled without a wider set of economic measures directed towards dispersal of industry and employment opportunities.

Thus, planning for each sector or sub-sector of the economic activity has to be carried on in fullest details integrating technical, economic and organisational aspects. □

## *Organisation of Planning*

If any nation undertakes aggregative or comprehensive planning, it becomes necessary for it to consider the establishment of a suitable planning organisation. If planning is of an indicative type, a small organisation, as in France, consisting of highly qualified economists and technical personnel would be adequate. On the other hand, with the entire economy taken over by the state and with the system of imperative planning, an elaborate planning organisation, such as Gosplan in Soviet Russia, may become inevitable. However, even where the planning organisation is small, such are the ramifications of planning reaching throughout the economy that it becomes necessary for the planning organisation to set up numerous consultative bodies or working groups on which are represented major agencies, institutions and interests in the economic system.

Where the country is large and has a federal organisation, it becomes necessary in addition to the planning organisation to set up a larger body representing both the constituent units and the federal government. There are different possible patterns of planning organisation—different in structure, strength, character and location in the administrative and economic system.

One point of view may be that there is no need for a separate planning organisation—but it must form part of the government itself. In the latter case, a point still arises whether the planning organisation should constitute a separate wing of Government or should form part of an established department. Thus, one point of view is that the planning organisation must be in the personal office of the Prime Minister while another view is that it should form part of the Finance Ministry. A third view is that there should be a separate Planning Ministry. In all these patterns, planning organisation will function within the framework of government administration. It is felt that such a set-up

may not be conducive to the distinct and all-pervasive influence which planning must exert over the administrative and economic system, since the planning organisation would be subservient to the established organisation of which it forms a part. Only a strong separate organisation can spearhead the process of planning.

If a separate planning organisation is set up, its character and the nature of its functioning have to be decided upon. Should it be only advisory in character or should its decisions be mandatory or binding on all limbs of government? Should it be an expert body or should it have a political authority?

It is not easy to answer the questions inasmuch as planning is a peculiar combination of economic arithmetic and political choice. Matters like input-output tables, material balances, manpower planning, consistency of targets and economic relationships—these and many others are obviously pure matters of technique and technology of planning. On the other hand, matters like choice between current consumption and future benefits, between high rate of growth with greater sacrifice of current consumption and low rate of growth with little sacrifice of current consumption, choice regarding sharing the burdens of planning, by different sections of the society, the extent to which means of production should be socially owned—all these inevitably involve wider issues and judgements which must require decision-making by an authority which can claim to be representative of the nation as a whole. If the separate planning organisation consists of persons who are only experts and who are appointed by those who exercise political authority with no inherent powers of their own, then obviously its functions are mainly in the realm of planning technology, *i.e.*, preparation of framework and document of planning. The planning body must work out such plans within the framework of choice of the political authority. Such an agency, therefore, is purely advisory in nature and derives its advisory authority from its expert character.

In such a set-up, there is a fear that the advice regarding planning by such a politically neutral planning authority may be totally neglected by the governmental authority. One way out of this impasse is to make the planning authority consist

partly of experts and partly of persons who wield political authority. Thus, as in India, the Prime Minister should be the Chairman of the Planning Commission, the Planning Minister its Deputy Chairman, and the Finance Minister as its member. An immediate disadvantage of this arrangement would be that the planning authority would lose its independent character and would act in a manner subservient to government and to political authority. Its economic arithmetic would be modified to the dictates of the political will.

Thus, whatever be the character of the planning organisation, it is likely to be caught up between the two evils—impotency and ineffectiveness on one side and loss of independence on the other. It is not easy to find out a *via media* between these two. A way out of this impasse is possibly the French pattern of planning organisation. There, the permanent machinery of planning consists of Commissariat general du Plan. It consists of Deputy Commissioner and Secretary-General and forty Councillors and heads of mission representing wide range of activities. It is a neutral organisation but neutrality is found to be advantageous since this has enabled it to emerge as a round-table for ministers—"a neutral ground where private interests, civil servants, and even different departments of one ministry can come together and air their differences, uninhibited by considerations of personal status. The French Commissariat is not just an advisory or consultative body like the Dutch Planning Bureau or Council of Economic Advisers to the President of the USA. It is *not* divided from the executive. The Commissioner General, personally or through his representatives participates in the working bodies whose decisions are enforceable. Thus, Commissariat du Plan is something more than an advisory board and something less than a real centre for the coordination of economic policy.

If a separate planning organisation is set up, the question of its organisational strength and staff arises. Planning is a complex function involving economic, technical and administrative considerations. These have to be related to the entire gamut of the economy and the society in all spheres and sectors. It is not a purely model-building exercise. It

requires deep understanding of the policies and their implementation, programmes and their execution. Economic development is not purely an economic phenomenon. It is inevitably accompanied by vast social changes. A profound understanding of the sociological aspects as important as that of economic and technical intricacies. The planning authority at the highest level, thus, must embody a wide ranging expertise in the fields of economics, finance, sociology, public administration and science and technology in all spheres, but specially in agriculture and industry.

The planning authority has to be adequately equipped with the staff. It is rightly stated that the staff organisation of the planning authority should not be on the lines of an organisation of regular governmental department. It should not be bound by hierarchy. Also, mere rules of seniority or regular procedures of recruitment would not be appropriate for staffing the planning organisation. It might be necessary for the planning organisation to draw, on a contractual basis, qualified persons from various fields including academic institutions and business and industrial organisations in addition to the government departments.

While planning is an all-pervasive activity, composition of the staff of planning organisation need not necessarily be parallel to the governmental administration. This is likely to attract the criticism that the planning authority is a parallel government.

This is more so if the planning authority starts taking up bits of executive functions. The temptation to do so is considerable. But if the planning authority slowly takes upon itself some execution functions, it will lose the sharpness of its planning activity and would itself be a road-block in plan execution.

How big the staff of the planning organisation should depend on the nature of planning. Indicative planning may require limited staff while comprehensive imperative plan would require a huge staff. Thus, the planning agency in France in 1963 had professional staff of about 35, while in India it was about 180. Gosplan in USSR has a much bigger staff.

The professional staff in French organisation of planning

increased to 150 from original 35 after productivity councils were amalgamated with it in 1959.

There may be different patterns of the internal organisation of the planning authority. One suggestion is to divide the organisation into three parts—one responsible for plan formulation, another for plan supervision and monitoring and third for plan evaluation. In each of these three parts, there has necessarily to be both sectoral and spatial work distribution.

All aspects of planning would necessarily require an efficient organisation for statistical and economic analyses. As planning becomes more and more sophisticated, it makes greater and greater demand on data of various types. However, the work of data collection, monitoring and evaluation should not develop into a full-fledged research activity. It must be left to the academic and research institutions. This is what is done in France. There, the Commissariat works during the actual preparation of the plans in the closest possible association with several administrative bodies, such as the Department of Economic and Financial Studies in the Ministry of Finance, the National Institute of States and Economic Studies, the National Institute for Demographic Studies and the Centre for Consumer Research, Study and Information.

Another possible way of organising the work of the planning authority would be to divide it in different groups concerned with the perspective short term and annual plans. However, it is doubtful whether such a division in the work of the planning organisation would be appropriate. For each sector of planning, perspective planning, short-term planning and annual planning should be interlinked or else while perspective planning presents one picture of development, the short-term and annual planning would go on altogether different lines.

Since planning is essentially mobilisation of natural resources, financial resources, manpower resources and administrative organisation, it may be possible to divide the internal working of the planning authority into groups concerned with each of these types of resources.

The mere existence of a separate planning organisation

would not do away with the need for planning functions within the regular departmental set-up of government. Thus, it is suggested that there have to be planning cells within each department. It would not, however, be proper to leave the work of the planning cells to a minor functionary. The head of each department must assume the responsibility for planning.

Though there may be a separate organisation for planning, for the actual preparation of plan, collaborative effort between it, the ministries of government and representatives of the various sectors of the economy is needed. Thus, in French planning system, plans are not prepared by its staff of 150. Between three to four thousand other people help to prepare them through the device of Modernisation Commissions. Bauchet calls these Commissions, the real original feature of the French system. All these Commissions work in close collaboration with representatives of all social categories -- government, and different branches of industry.

Where, as in Soviet Russia, government is subordinated to party organisation, the party organs must have their own planning set-up. Even in a democratic set-up, where party and government are distinct, parties must have their own forums in order to mobilise popular participation in planning.

In India, the planning machinery at the state level is still in the process of evolution. A study of planning apparatus at the state level published in 1969 states: "States do not have planning machinery worth the name. Most States so far have tended to treat planning as a peripheral function to be performed by an official who has no special qualifications for it.... The work of this official, generally has been to coordinate the schemes submitted by Development Department. It will be no exaggeration to speak of State Planning as departmental planning. Because of the absence of an expert body like the Planning Commission at the state level, state plans have lacked definite objectives, priorities and interdependencies".<sup>1</sup> However, the position is now changing. The Planning Commission is goading the states to set up a full-

<sup>1</sup>P.K.B. Nayar, *Leadership, Bureaucracy and Planning in India*, New Delhi, Associated Publishing House.

fledged machinery of planning at the state level. In addition to the Planning Department, planning cells in development departments, the inter-departmental committees and the Cabinet Committees on Planning, the states like Tamil Nadu, Kerala and Karnataka have set up Planning Boards supported by properly qualified staff. The process has to continue at the state level and descend to the regional, district and local levels.

In a large country, the states or the republics would have necessarily to bear the responsibility for a considerable part of planning which may have to be decentralised to the state or republican level. Therefore, there is a need for a well-equipped planning organisation at the state or republican level. It may not be as elaborate a body as at the national level but it must have sufficient sophistication to take up planning on its own. Otherwise a weak body at the state level would not be able to bring to bear on the process of planning an informed judgement about the local needs and resources. A weak planning organisation at the state level would necessarily lead to reduction of the planning function to mere compilation of departmental schemes.

As the planning function descends to the field level, the distinction between the plan formulation and plan execution, planning organisation and departmental organisation tends to be blurred. However, the need for some specialism and expertise in planning at the regional and local levels is strongly felt. Epilepsy at the centre and anaemia at the periphery will not be conducive to the planning in depth.

The weakness of planning machinery at the regional and district levels is not only a feature in India but in other countries as well. Bauchet points out that it took seven years to prepare in 1962 regional plans in France, known as "Regional Plans for Economic, Social and Territorial Development" largely owing to the absence of any regional economic administration. In an attempt to set up a suitable geographical framework, each district has now set up a permanent organisation to study and coordinate public utility programmes and the implementation of regional plans. One of the prefects, known as the 'coordinating prefect' acts as its chairman.

Where plans are the joint responsibility of the central and

state governments, a supreme organisation representing the highest political authority at both levels as well as of the planning authorities becomes necessary. In India, such an organisation has been constituted in the form of the National Development Council.

In a system of parliamentary democracy, parliament and its committees would have to create opportunities for reviewing formulation and implementation of the plan by the executive. In France, parallel to the parliamentary supervision, is the supervision by *Conseil Economique et Social* in which are represented different social and professional categories. A similar organisation at the state level is necessary to involve the local government institutions at district and local levels in the process of planning. □

## *Implementation of Planning*

The process of planning is not completed with the preparation of plan documents. Its consummation lies in its implementation. Implementation, therefore, is an integral part of the process of planning itself. There can be no dichotomy between formulation and implementation of plans. Indeed there is a continuum between plan formulation and implementation.

The success of planning should not be adjudged merely by its internal consistency or methodological sophistication, but by the extent to which the plan succeeds in its actual implementation.

If this is true, then it would not be correct to say, as is often said that the plan is all right but its implementation is defective. This alibi is frequently resorted to by the planners to cover the deficiencies in their own planning. Amongst the many constraints which wise planning has to take into account are constraints in the machinery of implementation of the plans. In the words of W. Arthur Lewis : "It is unquestionably a mistake to lead on to the administrative service a bigger programme than it can efficiently execute." Unrealistic assumptions regarding the capability of such machinery, must be considered to be one of the defects of the plan formulation itself.

Unrealistic planning, projecting an impossibly high rate of growth, stretching ambitions beyond the limits of available resources, may result in the formulation of a plan which is not capable of implementation. In the words of W. Arthur Lewis : "Needs are unlimited, a plan based on needs rather than resources is an advertisement, a propaganda exercise rather than an instrument of control". He believes that the rate of growth of an economy cannot be immensely different at the end of the Five Year Plan period than from what it was at the beginning. Thus, unrealistically high targets are bound to create problems like bottlenecks in the

supply of raw materials, plant and machinery, manpower and foreign exchange, the sum total of which may well result in a spiral of rising prices eroding the very basis of the plan itself. Like politics, planning is also the art of the possible.

Even if the plan is formulated in a realistic manner, the problem of its implementation still remains distinct and needs careful attention. As Barbara Wootton says : "It is stupid and inefficient to make a plan and then fail to carry it out. Insofar as production of goods and services is deliberately planned, people, plant and material must be got together on the job of producing goods and services." The method of doing so consists either of legal compulsion and regulation or economic inducements.

If, at the stage of plan formulation, planning is mainly economic in nature, at the stage of implementation, it is mainly administrative and managerial. Indeed both have to be correlated.

The implementation broadly consists of three parts - first, formulation of the policies and their execution, second, formulation of programmes and their implementation, and the third, operational plans of the individual economic units and institutions.

The aggregative targets of planning have to be supported by a suitable policy framework. The policy framework consists of a package of measures which will help promote activities for the realisation of plan goals and at the same time hinder hindrances to such an effort. It is thus a package of promotional as well as regulatory measures. The latter would consist of both fiscal and physical measures.

In a centralised or totalitarian system of planning in socialist countries, the reliance is, in the main, on *physical control* while decentralised and market-oriented planning for a mixed economy makes greater use of measures of *incentive and inducement*. To quote Bauchet, in the latter system, which he calls flexible planning, "in at least part of public sector the financial authority exercised by Finance Ministry over firms is probably as 'impervious' as the means of application adopted in Soviet Planning. But in the rest of the economic field, the means of fulfilment—grants, loans, tax relief, public works contracts, are used indirectly and may be more

properly described as incentives. Much is achieved by persuasion by pointing out the advantage to be gained through participation in the system of development outlined in the plan."

Should the sanction behind plan implementation consist of an elaborate and amplified structure of policies and measures or should it be selective or strategic in nature? The French planning stipulates that the number of means of enforcement should be limited if the Plan is to retain its flexibility. It is characterised by the twin features of *small* number of means of enforcement and greater reliance on financial measures. As Bauchet observes: "Fewer the decisions taken by a planning organisation, the more effective they will prove. This axiom has been corroborated in the centralised socialist economic systems and is truer still in the western ones out.... Intervention is carried out indirectly through financial measures rather than by direct constraint.... While constraint still has its value at times, it should be used as rarely as possible."

While basic industries in the private sector are cleared as investment projects by Commissariat general du Plan, for other sector the clearance is given by the Directorate of Industrial Production. Half the investments are financed by the Fund for Economic and Social Development by public loans. The general body of the Fund draws up an annual investment programme for each of them. Enterprises not dependent on public funds have greater operational autonomy. Price control in cases of concentrated manufacturing activities and quasi contracts with the manufacturers of capital goods, which bind them to carry out a clearly defined programme of investment in return for financial support, are other methods of enforcement. There is also the device of programme laws as a part of the Act approving the Plan. They enable an enterprise to undertake work covering a number of years enabling the entrepreneurs to lay down long term investment policies and enter into terms with suppliers.

The policy measures in support of planning could be

itemised as follows:

*Planning by Inducement*

1. Fiscal and budgetary policies
2. Monetary and pricing policies
3. Wage and income policy
4. Banking policies

*Planning through Physical Controls*

5. Licensing policies and capital issue policy
6. Policies regarding allocation of raw materials
7. Foreign exchange policies
8. Policies regarding procurement and public distribution

*Planning through Promotional Measures*

9. Policies regarding technical help and supervision
10. Training policies and supply of training facilities
11. Research and development.

Budget is an instrument of annual planning. Traditional budgeting is not quite suitable from the point of view of planning. Budgetary documents have, therefore, to be suitably altered so as to exhibit the allocation of resources for various planned programmes. Performance budgeting is a concept which is more in tune with the concept of planning.

Budget is not merely a statement of expenditure. It is also a set of measures of taxation, direct and indirect, and other ways of raising resources. Taxation not only provides a source of plan finance. It is, in addition, an instrument of encouraging and discouraging economic activities. It is also an instrument for redistribution of income and is, therefore, connected with the income policy of government. Taxation has to be used as a device for preventing the use of economic resources for production of goods and services which have a low priority in the plan scheme discouraging speculative economic activities or ostentatious consumption.

The monetary and pricing policies are of crucial significance to the orderly process of planning. Planning with stability is a slogan of considerable practical significance. Wrong fiscal, monetary and pricing policies can lead to run

away inflation which can completely erode the process of planning itself. Where the pricing process itself is abolished, as in a socialist economy, planners may not have to bother with the problem of prices but the problem is bound to surface in other forms. A cheap money policy is necessary where one of the goals of planning is the revival of the economy. However, where economy is over heated, where the investment is greater than the savings available, where resources are inelastic, where production is stagnant or shortages become chronic, a dear money policy together with selective credit control will be helpful in curbing inflationary tendencies.

One of the effective ways of controlling prices is measures for the building up of buffer stock of various final and intermediate commodities in order to support the public distribution system. The procurement of various commodities requires an executive machinery often known as food and civil supply organisation. The machinery has to provide a link between production and consumption. It has to procure goods at various points of production, store them and make them available through a network of public distribution system. Thus foodgrains and cotton will have to be procured from the farms while sugar, cloth or steel and cement may have to be procured from the factories.

The procurement price becomes an important issue of planning. Agricultural Prices Commission is set up to recommend prices for procurement of agricultural commodities which would be reasonable both to the producer and the consumer. However, it is not easy to fix prices satisfactory both to the producer and the consumer. From the point of view of curbing inflation, low prices would be justified. However, the producer must have an incentive and, therefore, would demand higher prices.

If the demands of the producers are conceded and higher prices fixed, the consumer may have to be subsidised. However, the cost of the subsidy must be borne by the public exchequer and this is difficult when the financial resources are barely adequate for planning.

One of the problems of plan implementation is the choice of agency for procurement and public distribution. A network of cooperatives can take up the responsibility provided they

are honest and fairly efficient. Whether cooperative or state, if the machinery is ridden with inefficiency and corruption it can defeat the aim of the public distribution system.

The wage policy is connected with pricing policy. Where prices and profits are kept under control, regulation of wages is possible. If, however, the condition is not fulfilled, labour more and more militantly organised through trade unions, is bound to demand higher wages leading to a snowball process of inflation with wages chasing rise in prices and rise in prices creating fresh demand for rise in wages. An integrated income policy has to be a built-in feature of planning.

Wages provide the price mechanism for the allocation of labour or manpower between the various occupations. Choice of employment being a fundamental liberty, industrial conscription or compulsory direction of labour may not be possible in ordinary times and wage differentials will be the instrument for adjusting supply of labour with demand. The planned economy is likely to make certain kinds of technical skills more and more scarce and these will have to be paid for at higher rates. On the other hand, arts graduates, fit to fill only clerical jobs, will attract lesser remuneration.

The wage policy may have to be supplemented by the institution of employment exchanges. In the words of Barbara Wootton, "Smooth distribution of labour in a planned economy would be facilitated by compulsory notification of all engagements and termination of engagements to the employment exchanges."

The banks have to play an important role in mopping up deposits and giving advances. The banks have to attract savings by offering better interest rates. But their efforts have to be within the framework laid down by the central banking authority. In a developing economy, which is also progressively monetised, there is a considerable scope for spreading the banking habit amongst the people who have never known banking before. The banking policies have to be in tune with the planning policies and bank advances directed towards the sectors to which the plans accord a priority.

It is more and more realised that the planning should not merely be confined to the budgeted resources. In planned

economy, the bank resources have also to be mobilised to realise the goals of planning. Therefore, banks must produce plans which must find a place in and be integrated with the economic development plans as a whole.

French planning is based on linking banking activities with economic planning. Instead of being guided exclusively by traditional commercial considerations when granting loans, they would make their selection with a view to promoting schemes laid down as priorities in the plan and brought to their knowledge by direction on credit. The whole credit apparatus is placed at the service of the Plan's investment programmes and closely coordinated with budgetary policy, giving a unity of action.

One way of achieving integration of banking with the general economic policies is to exercise social control over the banking. The other alternative is the nationalisation of banks. Even in non-socialist countries like France, major banks have been nationalised. Following the example, India nationalised the 14 biggest banks on 19th July 1969. But nationalisation would not solve all problems. It is still necessary for the banks to be so managed as to fulfil the objectives of planning without sacrifice of sound principles of banking and financial discipline.

Where all the means of production are not socialised and there is a substantial sector of private industry, the instrument of licensing policies and regulation of industry and monopolies are often employed to encourage enterprises of the right sort and discouraging enterprises of the wrong sort. Thus licensing policy may aim at promoting labour intensive, small-scale, mass consumption goods industry as against capital intensive, monopolistic and luxury goods industries. Licensing policy may also aim at proper location of industry, e.g., to prevent further industrial pressure in an already overcrowded, encouraging industry in backward area, or creating employment opportunities where they are needed. One of the difficulties of such licensing policy is the delay involved in scrutiny of applications and the discouragement it causes to the industrial development. Planning authorities have, therefore, to take special care to keep licensing procedures efficient

and prompt.<sup>1</sup>

Capital issue policy is intended to see that capital is not allowed to flow in undersirable or less desirable sectors like luxury building or speculative enterprises. If capital market is left to itself too much capital would be sucked away for these purposes simply because those who float such enterprises are able to provide the necessary security.

Just as rationing of consumer goods is necessary for just distribution of consumer goods, similar rationing of raw material is required for industrial development which is consistent with plan targets. Industries cannot reach the targets entrusted to them unless supply of raw materials is ensured. Where the raw materials are in short supply, there would be tendencies of the prices of such raw materials to rise, and if their prices are controlled there would be a tendency for them to disappear in the black market. Even socialised countries are not free from such problems. There is chronic tendency among enterprises in a socialist economy to keep huge piles of raw materials in short supply thereby further accentuating scarcities and increasing the difficulties of other enterprises. It may also happen that while raw material or intermediate products are transported at a considerable cost to distinct enterprises, they are not available to a nearby factory. Like the public distribution system of consumer goods, the allocation system of raw materials has also to be efficiently managed.

Where certain plants or machinery or raw materials are not domestically available, they have to be imported and imports require foreign exchange. A planned economy cannot allow foreign exchange resources to be freely drawn upon since they have to be conserved for realising plan targets. Foreign exchange allocation, therefore, becomes a critical part in the process of plan implementation. Sometimes foreign exchange for imports are linked up with ability to

<sup>1</sup>W. Arthur Lewis has observed: "By the middle of 1950s all leading social democratic parties in the world had come to realise that licensing is an inefficient and corrupt way of allocating resources and have dropped it from their programme." Even USSR is placing greater reliance on market and less on administrative direction. Licensing always hurts the small man most.

export. This may not be justified since this will unnecessarily discriminate against an industry which is of significance to the domestic economy though it may have little export potentiality.

Technical supervision, training facilities and research and development are some of the policies of critical significance for the promotion of activities though their importance may not always be recognised in the short run. Extension of technical knowledge is of a far greater significance for achieving the goals of planning than even financial assistance. In a field of agriculture, Arthur Lewis has pointed out : "Investment of one per cent of national income in technical extension can raise national income by half per cent." Research and development contribute greatly to the introduction of innovations which can entirely change the production possibilities.

To some extent, problems of marketing are solved through the public distribution system. But, in addition, facilities like godown and storage and transport have to be made available including a system of marketing intelligence, grading and standardisation. Indeed, these have to be considered as one of the sectors of planning.

The policies have to be executed along with the execution of programmes. Programmes and projects have to be planned and designed in all sectors of the Plan. They constitute the substance of planning. Programme planning linked up with aggregative economic planning has to be a constant activity of the executive agencies in a planned economy. Formulation of goals and objectives, tasks and targets, schemes and programmes, arrangements of necessary inputs—from year to year, season to season—constitute administrative planning which has to go hand in hand with economic planning. For this, the executive agencies will have to use the various techniques of planning, like network analysis, critical path method and PERT. The members of civil service, who man the executive agencies, have to be trained in these new techniques. In the absence of a trained civil service, successful implementation of plan cannot be ensured. That is why W. Arthur Lewis has observed : "Development planning is hardly practicable until a country has established a civil service capable of implementing plans."

Plan goals cannot be realised even in a specific field as a result of the efforts of only one executive agency. It is necessary to coordinate the activities of a number of executive agencies and this coordination must result in meaningful sequence of activities properly synchronised so as to lead to timely result. Thus planning has to enter into the warp and woof of administrative and executive action throughout the entire gamut of public administration.<sup>2</sup>

While programmes are intended to direct the efforts of individuals and institutions along plan channels, each institution or enterprise, whether in public, private or cooperative sector, must have a plan of its own which is consistent with the general framework of planning. Planning by an enterprise is a microcosm of national planning.

The manager of every enterprise has to be a planner. He must fix goals and targets with the framework of aggregative plan targets. The time table of activities, the necessary financial and physical inputs, plans for the procurement of these finances and inputs, inventory planning, manpower planning, etc., constitute the elements in the corporate plan of every enterprise. Every enterprise must have a budget of its resources so as to ensure maximum return from finances, raw material manpower, floor space, etc. Such corporate planning is possible only if enterprises are run by professional managers well versed in techniques of management. To augment such managerial talent is one of the goals of planning. As W. Arthur Lewis says, "given such professional management, public enterprise can be as dynamic as private enterprise."

Economists tend to confine the discussions of planning only to the aggregative aspects, or only to their formulation. The administrators or managers are bothered only about their own difficulties. What is required for successful implementation of plans is link up of macro planning of economists with micro planning of administrators and managers. □

<sup>2</sup>"Without a reasonably competent administrative machine, there is no basis for development policy." W. Arthur Lewis, *op. cit.*

## *The Process of Planning*

Planning is not a simple once-and-for-all operation to be completed in one step. It is a complicated web of a connected series of operations. It has to be done for various time periods—long term, medium term and short term. Aggregative national planning has to be followed and linked up with planning for various sectors—primary, secondary and tertiary, public, cooperative and private. It has to be done at various levels—national, state, district and other local levels, and finally the project or enterprise level. It has to be given a concrete shape by formulation of policies, programmes and projects. Its practical success has to be ensured by devising machinery for plan implementation. Resources have to be assessed, identified and mobilised for providing the wherewithal of planning.

All these aspects have to be tackled, one by one, with the help of different departments of government and specialised agencies, expert groups, including economists and technicians, representatives of business, labour, consumers and other interested groups, political parties, voluntary institutions and indeed the people at large in a democratic community. The national plan has to reflect the popular consensus and hence the need for popular involvement in the process of planning. In some countries, plans need to be approved by suitable legislation and in any case the plan, when it takes shape, needs to be approved by the Cabinet and the Parliament. In a federal set-up, the plan must have the clearance not only of the federal government but also government of the constituent units. To achieve all this, the plan has to pass through successive stages for formulations, discussions and clearances. That is why, as W. Arthur Lewis has rightly observed : “Planning is only in part an economic art; to an important extent it is also an exercise in political compromise.”

Since the plan period represents comparatively a very short interval in the life of the national community, it is

necessary that these plans are formulated against the backdrop of long term goals and trends. This is what the perspective plan seeks to accomplish.<sup>1</sup> Such a perspective plan must take into account not only the economic trends of the past, but also the innovations and changes which science, technology and organisation are likely to introduce. Surveys and futuristic studies must provide the basis in the preparation of the perspective plans. The perspective plans, therefore, have to be the work of experts. It may be left to the perspective planning division in the plan organisation which may parcel out the work to research institutions.

The perspective plan must have the commitments of the political authority. However, in non-communist democratic countries, the government that be has political authority for briefer intervals. The parties in power may change with the next election and the perspective of one party in power may be different from that of another. This may cast doubt on the sanctity of the perspective plan.

A five year or seven year plan has to be a more definitive document. It normally passes through several stages. Thus, in the Indian process of planning, it passes through at least three distinct stages. First, preparation of the approach document, second, formulation of the draft plan and the third, preparation of the final plan document.

At the approach stage, the planning authority has to prepare a brief document evaluating the achievements and failures of the last plan and in the light of such evaluation the goals that need to be accomplished through a fresh plan. Such goals have to be articulated in terms of growth rate,

<sup>1</sup>Thus, a separate chapter on Perspective Planning prepared by the Planning Commission as part of the draft outline of the Fifth Five Year Plan says that the growth rate in the Seventh Plan on a self sustaining basis will be 6.2 per cent, the highest ever reached against 3.8 per cent in the first decade of planning (1951-60), 3.7 per cent in the second decade (1961-70) and 3.7 per cent in the Fourth Plan, and the projected growth rates of 5.5 per cent and 6 per cent during the Fifth and Sixth Five Year Plans. By 1985-86, the end of the Seventh Five Year Plan, the country will be able to dispense with the concessional aid. It would be able to meet its foreign exchange requirements, including debt service charges, from its own resources. The total population in 1986 will be 734 million against 581 million in 1971, *Deccan Herald*, Dec. 4, 1973.

employments, incomes, its distribution and output mix and targets of principal commodities. The strategy for reaching these goals and the policy framework that is needed may have also to be indicated in general terms. At the approach stage, the focus is on general magnitudes like size and sectoral allocations rather than on the details of the programmes and proposals.

The approach to plan, however, cannot be based only on evaluation of the past and hopes for the future. It must be backed by technically sound forecasts. These forecasts have a particularly important place in the process of planning in the western economies. Thus in France, a year ahead of the plan itself, Commissariat du Plan and the Department of Economic and Financial Studies (SEEF) jointly explore the field of the plan by investigating for the period of time it is to cover the prospects of the development of the economy. The Dutch forecasts, *viz.*, "An exploration of the economy potentialities of the Netherlands 1950-70" is another example. These forecasts are particularly relevant to planning for an economy which allows considerable amount of freedom to consumers and producers. Forecasts are a futuristic analysis of spontaneous behaviour. This is not so necessary in systems of centralised planning as in Soviet Russia. But even their forecasts of technology are necessary; nor can changes in the future scales of preference be entirely ignored. These forecasts are based on several assumptions and may not entirely be foolproof. However, they are in the words of Bauchet, "an indispensable preliminary to any Plan.... The merit of the forecasts is that they indicate the nature of development in the distant future so that a rational choice can be made between various rates of expansion."

After taking the information and forecasts into account, the political authorities in France decide what the rate and nature of expansion shall be and send their instructions to the Commissioner General. These instructions are the framework into which the Modernisation Commissions must fit their efforts. Thus, if forecasts constitute the technical part of planning, the 'instructions' would reflect the element of political choice. But the forecasts enable the 'instructions' to be objective and not just arbitrary political choice.

The approach document is a tentative document which

clears the decks and sets the process of plan. It is tentative not only in its magnitude, even its assumptions are liable to change. The approach document could be discussed by various technical and departmental organisations. It can form the basis for nation-wide discussion on the plan in the pipeline. Indeed, one of the objectives of preparing such a document is to invite suggestions and ideas from as wide a circle as possible.

On the basis of the reactions to and the observations on the plan documents, more detailed information is collected by the planning authority. The draft plan may thus be prepared. Some time it may be described as a plan frame. The detailed work necessary for preparing the draft plan may have to be done through a series of working groups consisting of economists and administrators from various departments, interested groups or advisory bodies. The deliberations of the working groups may not be very fruitful unless the departments do their own home work. The heads of various departments may appoint their own study groups for each of the important sectors or sub-sectors. The working groups may hold a series of meetings or form task forces. The integration of the reports of various working groups dealing with various aspects of planning like resources mobilisation, or manpower planning or dealing with various sectors of planning have to be coordinated in terms of a consistent plan frame. The staff of the planning authority would have, therefore, to associate themselves at all stages with the deliberations of the working groups and help the formulation of the sectoral or aspectwise plan documents and their suitable integration.

In a system of planning for a mixed economy, it is essential to plan for the private sector as well. The process of planning for private sector may have to be different from planning for the public sector. For the former, planning must involve private entrepreneurs as well. Committees for planning in different sectors must have on them the representative of the private sector. The targets cannot be imposed *a priori* by the public authorities but these must be formulated on the basis of schemes formulated by industrial firms and business houses as well as trends regarding consumer

preferences. All these will have to be assessed and formulated by the committees where business interests are represented. This will give them the feeling that they have helped in formulating the plan and are responsible for their implementation.

The draft plan at the national level has to reflect the draft plans at the state levels, the local levels and the enterprisers. These have, therefore, to precede the formulation of the national draft plan and they will have to be integrated at a successfully high level. This procedure would require a fairly detailed time table which has to be followed in practice. However, the time-table for the preparation of the plan may get upset by the failure on the part of some agency or the other to give a final shape to its own contribution.<sup>2</sup>

The draft plan so prepared must have the seal of approval of political authority before the planning authority could go ahead preparing the final plan. If the political authority wishes to make certain changes, these may have to be accommodated by the planning authority by suitably revising the draft. If the planning authority keeps the political authority informed of the progress in the process of planning through various formal or informal channels of communications, the draft plan can pass muster without much alterations. It is one of the functions of the draft plan to produce various alternatives so as to enable the political authority to make the final choice. If the planning authority is able to produce clear-cut alternatives, it will facilitate the choice by the political authority. But there may be ambiguities or new problems or objectives may be thrown up at the stage of consideration of the draft plan and this may delay the formulation of the final stage.

The final plan has to embody all the revisions in the draft which have been finally accepted and at the same time work out in fair amount of detail various programmes and policies. The plan document has to consist of a number of chapters

<sup>2</sup>Talking of difficulties of planning in such a federal set-up as existing in India, Barbara Ward says, "Close coordination of the tasks of all 16 state governments reporting back to a body of 50 ministers hardly suggests speed and clarity."

dealing with approach, size, general content, allocation of resources, estimate of resources, sectoral programmes, manpower programmes, administrative organisations, spatial dimensions, etc. The final plan document may be printed and may run into a thousand or more pages. The document has to be signed by the members of the planning authority and may have to be formally approved by parliament.<sup>3</sup> In some countries, a law is enacted approving the plan.

<sup>3</sup>Similar procedure exists in France. Parliamentary control is exercised indirectly through the funds required for implementing the plan. Parliamentary control, up to now, has proved incapable of effective control on economic decision-making or choosing rationally between the alternatives or fixing objectives. However, essential options have to be submitted to the parliament since the nation's political representatives are in close touch with population and its needs. The relationship between Plan and Parliament may not always be easy to resolve. The period for which plan is formulated may not be coterminous with the period for which parliament is elected. The party whose government formulates the plan may not remain in power in parliament to implement it. Indeed the plan demands a long range socio-economic commitment which extends beyond the parliamentary tenure. Like democracy, planning also requires a sense of fundamental unity in the nation. Barbara Wooten poses the issue as follows : "The critical question is simply—are we or are we not deeply divided that there are not genuinely agreed social objectives which could be embodied in a long term plan?" If the nation is not deeply divided but can discuss common social objectives, then there is still a further dilemma. Again, in the words of Barbara Wooten, "The dilemma is that economic planning demands continuity and political freedom appears to imply instability.... Devices have to be thought of to provide continuity to those acts of government which form an integral part of a long term plan. The modern practice of establishing by acts of Parliament permanent or near permanent Boards of Commissions with a definite job to do is an effective way at circumventing the effects of political crisis and change fullness of Parliament and their electors. On Parliament falls the responsibility of setting up extra-parliamentary institutions by which agreed long term plans could be put into effect."

The manner in which problems of this nature are resolved in France is indicated by Bauchet as follows : "It is useless to draw up a Four Year Plan if its targets are to be called in question whenever the legislature chooses to discuss prices, subsidies and other economic matters, as is likely, especially during budget debate ... The present solution is a compromise. Parliament is committed only to the general trend of the Plan.

*(Continued on next page)*

It is necessary that the various stages in the plan formulation are completed on time or else, as it happened in India, the final plan document would be out only after the plan period has already commenced.

In some cases, even the inauguration of the plan may have to be postponed, thus resulting in plan holidays.

The five year plan or the seven year plan is implemented from year to year. Hence annual operational plans, coordinated with budget are also to be prepared.<sup>4</sup> For annual plans also, working groups may have to be constituted to prepare details of the annual plan. The annual plan document must contain details for various projects, and time schedule for construction. In a large country, where the administration is federal in nature, the working groups may have to consist of the representatives of the State Governments, the Central Government and the planning authority. Thus, while the current annual plan is in operation, the next year's annual plan has to be formulated simultaneously.

In a planned economy, the budget must clearly exhibit the development plan on the capital side of expenditure. This has to be a coordinated exercise between planning and finance authorities.

Such an elaborate procedure of planning may be time consuming. Indeed it may degenerate into a ritual and its

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But continuity is ensured by two new legislative provisions—the programme laws by which the investment programmes can be fully implemented and the outline laws which embrace several legislative enactments with a common theme.” Anyway the necessity for planning must take precedence over outdated legal concepts.

The plan comes before the parliament not only for general approval of the medium term plan like the Five Year Plan but also on year to year basis. “The Government is requested to present to Parliament a report on the fulfilment of the Plan showing what its financial implications will be during the coming years. In [conjunction with the Finance Bill, this report ensures a close relationship between the Plan and the Budget.” Bauchet, *op. cit.*

<sup>4</sup>Bauchet points out that in the Soviet Union, planning is now annual rather than multi-annual. But he cautions that care must be taken to prevent the medium term plan from fading away as that would destroy continuity of policy. Bauchet, *op. cit.*, See also Ch. II above.

result may not be commensurate with the time spent by the numerous agencies. After all plan procedures are not an end in themselves. But there is every fear that this may happen with the result that the very basic purpose of planning and considerations of basic issues in depth may well be sacrificed at the altar of the plan procedure.

Both the annual plans and the intermediate period plans will have to be continuously modified in the light of experience. The experience may be assessed through systematic evaluations. In India, annual plans are evaluated but the results of evaluation may not be available on time so as to facilitate suitable changes in the new year plans. In addition, there is a mid-term appraisal in the Indian planning process.

The plan procedures by themselves are not enough. What is needed is the ability to assimilate the result of experiences and studies and their articulation in terms of more worthwhile plans. □

## *Financing the Plan*

Though the plan in the ultimate analysis has to be in terms of physical targets and physical resources, the operating agencies have to incur financial outlay to reach physical targets and required financial resources have to be placed at their disposal for the purpose. These financial resources have to be raised by fiscal authorities.

Of course, it is not easy to distinguish between the plan resources and non-plan resources nor is it easy to accord precise meaning to plan outlay and non-plan outlay. The non-plan outlay may on analysis be found to be as significant to the achievements of the plan as the plan outlay itself. Thus, all expenditure on maintenance of assets though not reckoned as plan expenditure is as crucial to the success of the plan as the expenditure on the plan schemes themselves. Sometimes this is overlooked with the result that while new roads are constructed, new schools opened, and new dispensaries established out of the plan funds, the roads are not maintained, the schools are neglected and the dispensaries are not properly supplied with medicines in the absence of the maintenance grants for recurring expenditure thus frustrating the very purpose for which the plan expenditure was originally incurred. The essential and ultimate unity of plan and non-plan expenditure cannot be overlooked.<sup>1</sup>

The financial resources for plan have to be raised by the same means by which the state resources are generally raised, *i.e.*, through taxation, loans, and surplus income of public enterprises. However, with the progress of planning, it is the last which is expected to be the most buoyant and dynamic. The public enterprises and assets created out of plan expenditure are expected to yield surplus resources

<sup>1</sup>That is why W. Arthur Lewis has rightly suggested that the planning exercise should begin by projecting what will happen to the recurring expenditure before taking into account new commitments to be made in the development plan.

which could be reinvested to carry the plan forward. This is possible, however, if the investments are sound and the enterprises are run efficiently.<sup>2</sup>

It is often said that in a communist country there are no taxes on citizens. All that this means is that the resources are raised by public authority in some other manner. Since all the means of production are owned by the state and the distribution system is also publically owned, profits of public enterprises provide the necessary resources to the state. The public enterprises make profits out of the captive market where prices are fixed by the public authority. The prices so fixed may allow for large margins which have to be tolerated by the consumers because of the monopoly of the state producer. In such a system of planning, therefore, prices may not represent the cost of production but the deliberate decisions of the public authority or the planning authority to raise the necessary resources.

Taxes may be direct or indirect. With growing incomes and economic transactions both direct taxes, like income-tax, and indirect taxes, like customs, excise and sales tax, may syphon off to the public exchequer a good chunk of growing income in an economy stimulated by plans. However, where private enterprise has still a role to play, extremely high taxes may prove counter productive and investment may stagnate. However, what constitutes the taxable capacity in a planned economy cannot be stated with any degree of accuracy.

It has, for example, been argued that there is considerable potential for raising taxes on agricultural incomes of the large, progressive farmers specially in irrigated areas whose incomes have rapidly increased, thanks to the Green Revolution. Suggestions have also been made to raise tax in the form of labour for local community works.

Where infrastructure facilities, like irrigation, power generation and roads and communications are provided out of

<sup>2</sup>This is what W. Arthur Lewis has to say on the subject, "an economy can dispense with private enterprise if it possesses a capable and enterprising public service (which most underdeveloped countries do not have), but it cannot in any case dispense with profit, since profit is the major source of saving in a developing economy whether in private or public enterprise".

public funds, it is right to expect that the public authorities would levy charges, such as electricity rate, road tolls, betterment levies and water rates, which not only cover costs but place surpluses at the disposal of the planning authorities. It is but right that those sections of society who derive benefits from planning must be willing to bear their own share of contribution to continue the planning process so as to benefit those who have yet to receive the fruits of planning. Unfortunately, though strengthened by the plans, those beneficiaries use their strength to avoid paying their legitimate contributions. Planning authorities, therefore, have to make an effort to create an atmosphere of plan consciousness to such a degree as to evoke a spontaneous tendency of commitment to plan effort.

In addition to taxation and loans, there are many other special ways of raising resources. For example, life insurance, if nationalised, places at the disposal of the state vast resources for development programmes. Of course, if the development programmes are themselves not very remunerative, the question of fair yield to the insurance funds invested in such programmes may arise. If, however, insurance becomes universal, it can adequately support the development programme which is also universal in nature. In a country like Sweden, compulsory contributions to the pension fund or social insurance fund have placed enormous quantities of resources at the disposal of the public authorities. In addition, small savings, deposits in postal banks and other banks, special savings schemes, like the Unit Trust, Provident Funds, etc., can mop up growing resources and make them available for the purposes of planning. Institutions like land development banks or electricity boards raise resources through debentures. Apart from normal banking institutions, cooperatives can also be encouraged to raise deposits from a large number of rural people as yet uncovered by banking.

In a federal organisation, where the plans are divided between the federal plans and state plans as well as local plans, allocation of resources as between these three categories of plans arises as a major issue. Normally the constitution and legislation provides a scheme of allocation of resources.

However, the scheme may not necessarily fit in with the financial burdens which these authorities have to bear to support their plans. Where such a divergence arises between the scheme for allocating resources and responsibilities of planning, many complications may well arise in the process of planning. Thus, in India, the states are always vociferous in clamouring for larger plans but not equally enthusiastic in raising commensurate resources. Instead, they are always eager to secure larger share in grants allotted by the Centre. The Indian Constitution allows for quinquennial finance commission, for allocation of taxes and statutory grants. But the discretionary grants under the constitution are at the disposal of the planning authority for allocation according to plan responsibilities of various states. However, allocation of such grants can be an occasion for acute horse trading. To eliminate this, the Indian Planning Commission has laid down a formula, known as Gadgil formula, anomalous to the formula of a judicial nature adopted by the Finance Commission.

Such are the demands of planning for more and more finance that all the sources suggested above may not be adequate and the plan and finance authorities are compelled to resort to deficit financing. This remedy, however, is likely to prove worse than the disease triggering off inflation which is rightly regarded as the most regressive tax. Deficit financing thus must be considered as a sign of incompetence of fiscal and planning authorities.

Inflation is not to be looked upon as an invariable concomitant of a developing economy. As W. Arthur Lewis suggests, growth without inflation is possible with balanced development of agriculture and industry. To quote him: "(though) some of the better organised societies can safely finance some capital formation by the creation of money, most underdeveloped countries would be unwise to launch upon an inflationary course because they could not control it.... Once the tradition of monetary discipline is lost, government takes to inflation like ducks to water and financial control disappears. Continuous price inflation moving domestic costs out of the line with prices can be a major source of economic stagnation."

Foreign exchange resources for planning are secured

through exports promotion and import substitution. Exports cannot only secure foreign exchange needed for economic development but also serve as an engine for growth. For example, Venezuela has found in oil export an engine of growth which has enabled her to attain a growth rate of six per cent. Failure to plan and attain a satisfactory rate of growth can constitute a brake on economic development.

Control over prices is essential from the point of view of retaining export capability. Rise in domestic costs can price out country's commodities from international market forcing devaluation or series of devaluations.

Foreign aid, *i.e.*, external borrowing can help the country and fill in the gap in foreign exchange resources.



## *Plan Monitoring and Evaluation*

Planning has no meaning except in terms of the goods that it is able to deliver. Planning is not an end in itself. It is a means to an end and the end is the achievement of pre-determined goals. These goals, to start with, are couched in aggregate terms such as increasing gross national product, increasing per capita income, the distribution of the gross national product in a more equitable manner and the provision of full employment opportunities. However, these aggregate national goals have to be disaggregated sectorwise and sub-sectorwise and thus, we come at the various physical targets in terms of million tonnes of foodgrains, coal or steel or the quantities of cargo or passengers moved by the Railways, etc. Related to these physical targets are financial allocations. However, mere financial allocations do not result in physical achievements. There has to be the necessary organisation and personnel who could carry out these programmes making best use of financial resources to achieve maximum results. Every plan scheme or project must, therefore, take into account the organisational machinery through which plans and programmes will be implemented. If the organisational machinery is adequate, plans have every chance of success. If the plans fail and the planned targets are not achieved, it does not behove the planner to find fault with the implementation machinery. A planner cannot quarrel with his tools. His plan must take into account the organisational machinery and must ensure that it is adequate to deliver the goods. In this sense, planning and implementation are inseparable. A plan is as good as the results it is able to accomplish. A paper plan is no plan at all. A plan which takes care of the efficiency in implementation would be able to accomplish much more than what it seeks to do and it would also be able to accomplish it at the least cost. In other words, with the given investment, it would achieve more than commensurate results. It would be able to bring down the capital output ratio. Per unit of

investment of capital, it would be able to achieve larger quantity of output.

Unfortunately, Indian planning has been deficient in this respect all these years. The contemplated results are not accomplished in terms of the increase of the national product. While we have been aiming at a steady growth rate of five per cent through all our Five Year Plans, in actual fact, the growth rate has hovered around three per cent. Also, because of cost escalation and inflation, the physical plan has been generally smaller than the financial plan. Because of less than optimum efficiency in the implementation of plan programmes, the capital output ratio has shown a tendency to rise. All this underlines the importance of paying continuous attention to setting up a strong and efficient machinery of implementation of plan schemes and their constant monitoring and evaluation with a view to ensure satisfactory results. These aspects have been sadly neglected in the past and immediate steps need to be taken up to improve the monitoring of implementation. Monitoring should not be confined only to the national level. As we go nearer the field, monitoring has to be all the more intensive. There should be close and continuous supervision over the actual implementation of plan programmes in the field and their periodic monitoring and evaluation.

The monitoring of implementation, however, is not as easy as it looks. In the past, monitoring has simply meant checking of expenditure. This is not only unsatisfactory but may even be counter-productive. Often it results in the rush of expenditure in the closing months of the financial year. What is required is monitoring and evaluation with reference to the real objectives of a project and the real objectives are not in either financial terms or even physical terms. The manner in which the results are obtained is also equally important. If the results are accomplished by wrong means, there may be a temporary gain but a setback in the long run. For example, if the programmes of family planning are implemented through coercion, targets regarding tubectomy or vasectomy may be accomplished. But use of coercive methods may create such a strong revulsion against the family planning programme that they would receive a long term set

back. What is required is the need to educate the target group and solicit their voluntary participation and cooperation. This aspect is important in respect of most of our programmes. We often describe planning in India as democratic planning, and in democratic planning, voluntary participation of the people is of very great significance. Also, what we are seeking to achieve are enduring results and not some short-term physical accomplishments. In the hurry to show results, these aspects are totally forgotten and, in the process, long-range damage is done to institutions and organisations, and the morale and motivation of the people.

It follows that while data and statistics are important, evaluation and monitoring are not entirely a quantitative process. There is also a qualitative process involved. A satisfactory system of monitoring and evaluation should take care of the qualitative, no less than the quantitative aspects of the plan implementation.

Monitoring and evaluation ought to take care of the 'ultimate', 'penultimate' as well as 'instrumental' targets and goals of every plan programme. The 'ultimate targets' have to be in terms of the final objectives of a project or scheme—in terms of output generated or employment opportunities created. The 'penultimate targets' may have to be one stage before the realisation of the ultimate targets. Thus, if the ultimate target is in terms of the millions tonnes of foodgrains produced, the 'penultimate targets' may have to be in terms of distribution of seeds, fertilisers and insecticides or utilisation of irrigation potential. The 'instrumental target' have to be in terms of the means through which the penultimate and ultimate targets are accomplished. Thus, they may be in terms of the centres for the distribution of inputs, the personnel incharge of such centres, construction of wells and field channels necessary to create the irrigation potential, the field organisation required for discharging this work, etc. One of the defects of our planning is that while 'ultimate targets' are fixed; 'penultimate' and 'instrumental targets' are left vague. In the light of our experience of plan implementation in the past, it should be obvious that unless we fix up 'penultimate' or 'instrumental' targets which are consistent with the 'ultimate targets', we cannot

realise the plan goals. Per contra, we cannot stop at fixing the 'penultimate' goals. Thus, increasing area under high-yielding varieties of seeds can only be a penultimate goal. The realisation of this penultimate goal would have no meaning unless we are sure at the same time that spread of area under high-yielding varieties also results in increased production of foodgrains or other commercial crops. High-yielding varieties of seeds have to be accompanied by increased supply of fertilisers and irrigation water. HYV programme has to be a part of a package and where the package is missing, realising the goals regarding only one item does not show results. Plan implementation requires coordination without which programmes may go on in a lopsided fashion and results would not be accomplished. Monitoring and evaluation, therefore, has to take note of the realisation of the ultimate goals or the ultimate impact of planning and cannot stop short of them and remain confined to some instrumental action.

Plan programmes can broadly be divided into two components. The first relates to those activities where investments are concentrated and the second where these are dispersed. Irrigation and hydro-electric projects and establishment of plants and erection of buildings falls in the first category while schemes such as those related to agriculture like agriculture extension or cooperative development or crop production would fall into the second category. The success of planning in the first component substantially depends on the organised machinery of government but the success of the schemes falling in the latter component depends as much on people's initiative as on the machinery of government. Indeed, in respect of these schemes, the main role of the machinery of government is to motivate and activate millions of farmers on whose efforts depends the accomplishment of goals.

Monitoring and evaluation of activities falling in the first category is comparatively much easier than falling in the second category. In spite of this, surprisingly enough, evaluation has paid more attention to the latter than to the former. This balance needs to be set right. There has been a lot of schedules slippage in respect of several irrigation and hydro-

electric projects and establishment of public enterprises resulting in considerable losses. An evaluation of these projects would have brought out the deficiencies. One of them might well be dispersal of resources over too large a number of projects leading to the delayed completion of several projects. In a hurry to bring in too many projects in the ambit of planning, no more than token provisions are made in respect of several projects which then go on hibernating for any number of years. This is hardly a way of optimising plan resources. In fact, it is project planning of this sort that might have led to the increasing capital output ratio which has been a disturbing feature of economic development in our country.

Expansion of the public sector has been an important feature of planning in our country. But it is sad to reflect that massive investment in public sector enterprises has not yielded the necessary dividend. It is necessary to undertake comprehensive evaluation of the public sector enterprises in order to set right the deficiencies of the past.

Evaluation has to go deeper than doing mere cost-benefit analysis. It must bring out latent as well as patent deficiencies—deficiencies in organisations, institutions and personnel so that these could be set right. For evaluation of this sort, it might well be necessary to follow the case study method to supplement the methods of collection of data en masse and their analysis.

While evaluation may require a specialised machinery, monitoring has to be an in-built feature of the normal machinery of administration. For every important scheme or enterprises, there should be a review and monitoring committee in every department or organisation of government. On this review committee, there should be all persons connected with that particular scheme or enterprise. The review committee ought to meet periodically at regular intervals. It should have a regular management information system which would feed the review committee regularly in terms of what have been called the instrumental, penultimate and ultimate targets. The review committee ought to pin-point shortfalls or deficiencies whenever they occur and immediately set about rectifying these deficiencies before any further damage is done.

An alert machinery for review and monitoring can save much wastage of resources and enable plan progress to be made on the right lines.

Past experience would show that there has been a tendency to make too many changes in the plan schemes. These are based more on some snap judgements of people in authority than on the basis of systematic review, monitoring and evaluation. It is necessary to avoid unnecessary frequent changes. It must be realised that while policy changes could be made quickly at the headquarters, their communication and implementation in the field necessarily takes a long time. Planners and policy makers ought to provide sufficient time to those incharge of implementation to show results. A mere declaration of plan objective or policy is not synonymous with plan implementation.

Success of planning depends on scientific formulations, their disaggregation with reference to local conditions, vigorous implementation at the field level, close and continuous supervision, tight monitoring, expert appraisal and evaluation, and modification and rectification based on such appraisal and evaluation. □

## *International Planning*

With the evolution of national planning systems in many countries, a stage is set for some sort of integration or collaboration between the different national planning systems. In the years to come this is likely to replace, in a progressive manner, international trade and capital flows through channels of private business. Already these latter are drying up with greater participation of the state in the economic system. The international economic institutions like International Bank for Reconstruction and Development or the Asian Bank are supporting in an increasing measure the economic development efforts specially of nations particularly, in the underdeveloped countries. But this does not go far enough. A new pattern is, therefore, emerging for collaboration between the planning systems of the underdeveloped countries and the socialistic countries. Such measures have already been taken between India and Russia and other eastern countries and joint economic commissions have been set up.

At the conclusion of the historic visit of the General Secretary of the Russian Communist Party on November 30, 1973 it was decided to set up Indo-Soviet study group, for cooperation between the Planning Commission of India and the State Planning Committee of the USSR.

The group to exchange experience in economic forecasting, formulation of projects and programmes and methods of monitoring and evaluation of projects is set up within the framework of the Indo-Soviet Commission on Economic, Scientific and Technical Cooperation. It comprises of members of the Planning Commission—assisted by representatives of Central Ministries and officials of the State Planning Committee of the USSR (Gosplan). Specialists of other organisations and institutions connected with planning could be enlisted in the capacity of advisers or experts. The Group meets not less than once a year in New Delhi and Moscow by rotation. It exchanges the expe-

riences and knowledge in the methodology of annual, medium and perspective planning. Agreed minutes of the study group are submitted to inter-governmental Indo-Soviet Economic Commission on Economic, Scientific and Technical Cooperation.

Similar procedures and processes have been evolved over years in respect of other eastern European countries also.

The concept of new economic international economic order which has gained increasing currency in recent years has opened up new opportunities for international planning. Economic thinkers, statesmen and diplomats as well as leaders of various countries have thought of in terms of north-south and south-south economic dialogue. The success of the European Economic Community has given a fillip to the idea of the Asian Common Market. Multilateral and bilateral aids from the developed to the developing countries and promotion of international trade on equal terms and without barriers between the developed and developing countries as well as amongst the developing countries have been increasingly advocated. Coordination between planning of various developing countries can provide an appropriate channel for such economic cooperation implicit in the international economic order. The Joint Commissions between India and developing countries can take up such coordination between India's development plans and the plans of other countries.

## *Optimum Planning*

We have considered in previous chapters planning in all aspects—the concept and substance of planning, its methodology and process, its organisation and management, its financing and evaluation.

An important point which has emerged is that planning is not an end in itself. It is a means to an end. It is not an ideological finality. The tests of its success have to be pragmatic. The mere incantation of planning is no guarantee of successful economic development. It has to be evaluated in the light of experience. There cannot be a dogmatic insistence that “more the planning, the better it is for the economy”. If in the case of planning, as in architecture, “less is more”, we should not hesitate to accept it.

Has planning been conducive to the attainment of socio-economic goals? Has it enabled society to achieve the largest growth of which it is potentially capable and distribute the fruits of growth far and wide through all the sectors of the society? Posing the question, “Is the French economic expansion attributable to the existence of Le Plan?” Bauchet gives the following answer: “Growth has been particularly vigorous since planning was introduced. During the period of planning, France has achieved a rate of economic growth at least double that of United Kingdom. French joint planning procedures have contributed something to France’s economic development”. A 70 per cent increase in national product in twelve years gives France a very satisfactory position in the field of peaceful international competition.

The achievements of planning in the socialist countries have also been impressive. In the Soviet Union, the national product increased from 1950-58 at a speed of approximately 10 per cent per annum and was expected to exceed 7 per cent per annum in the years 1959-65.

Japan achieved miraculous economic development during the thirty years after the end of the war. Raising itself from

the war time ruins and utter poverty, Japan experienced waves of technological innovations and high economic growth. However, planning does not claim credit for all this economic accomplishment. The modest claim of the Japanese Economic Planning agency is that it has made constant efforts to respond to varied changes in the Japanese economy and assure its smooth management. The agency sometimes failed to cope up with coming changes and at other times, made pioneering achievements, providing foresight ahead of time.

In India, Planning has enabled the development of basic industries, building up of infrastructure and modernisation of agriculture. However, the rate of economic growth has hovered around 3 to 3.5 per cent while the plans aimed at a rate of 5 to 5.5 per cent. This must be considered to be a short-coming of our planning effort.

Planning is not so much an ideology but a technique of economic management which has been found useful in countries with different economic systems. At the same time, different economic systems themselves have shown a tendency towards convergence. This has made it possible to think in terms of an optimum system of planning which can combine the best features and techniques of the planning systems of different countries. This is essentially an eclectic approach rather than a dogmatic ideological approach. The concept of optimum planning, if developed over a period of time, should enable a country to secure optimum growth. Developing a system of optimum planning, drawing on and assimilating the best features of the different planning systems of the world in the developed as well as developing countries, is particularly important for India because after thirty years of experience of planning, we have realised that our actual accomplishments which are in the neighbourhood of about 3 to 3.5 per cent of growth rate have fallen short of our target of about 5 to 5.5 per cent growth rate. Our planning has gone more or less on a beaten track and is in need of innovations which could make our planning more effective.

The development of optimum planning system requires a conscious attempt to introduce modifications and innovations after learning from experience. The analysis of the planning system in various aspects attempted in this book does throw

up some suggestions for such changes.

Firstly, two components of planning should be clearly distinguished—public investment component and the component of general economic development. The first component must be treated as imperative though the second may be considered as indicative. This means that there should be concentration on public investment planning in respect of which slippage of any sort should be ruled out. With a firm commitment to public investments and cent per cent success in their execution, it should be possible to gain a greater measure of reliability regarding indicative components of the planning.

Secondly, while there could be a measure of compulsion regarding public investment, indicative planning should mainly rely on fiscal and monetary devices.

Thirdly, those patterns of planning which require popular participation should be clearly identified and attention focused on means of mobilising popular participation in respect of those components of planning.

Fourthly, there should be a constant pursuit of the concept of multilevel planning with maximum scope given for decentralised planning, including planning by local authorities. In respect of the decentralised sector, centrally conceived schemes need not be considered as guidelines.

Fifthly, sectoral planning should be supplemented by spatial planning.

Sixthly, scientifically formulated, technically feasible and economically viable projects should alone qualify for investment included in the plans.

Seventhly, employment promotion should be closely related to the formulation and implementation of projects which can contribute to production and productivity.

Eighthly, the pattern of investment should correspond to the factor endowments, especially the abundance of manpower in the country.

Ninthly, planning must be constantly checked for internal consistency.

Tenthly, the plan targets must not be out of proportion to administrative capability for plan implementation as well as availability of fiscal and financial resources. Planning should be based on facts rather than hopes or wishes

Eleventhly, the organisation of planning should be made more and more technically qualified especially at the intermediate and lower levels while the organisation at the higher levels should be more responsive to the realities in the field.

Twelfthly, planning should be considered essentially as an exercise based on expertise and should be considered to have its own validity transcending changes in the political complexion of the governmental authority.

Thirteenthly, policies and their execution, programmes and their implementation and corporate planning should be considered integral to the process of planning.

Fourteenthly and finally, plan monitoring and evaluation should be in terms of impact of planning rather than merely in terms of inputs and outputs.

The search for an optimum system of planning is a continuous process. The planning system must undergo constant improvements in the light of experience. □

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